

**Title:** Making ecosystem services approach operational: Experiences from Dhauladhar Range, Western Himalaya

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**Table S1: Ecosystem services as perceived by different households (n=66 households) in three ecosystem types**

3=provisioning

2= regulating

1=cultural

| Household | Forest  | Grassland | Agro-ecsoystem |
|-----------|---------|-----------|----------------|
| 1         | 3, 2    | 3, 1      | 3              |
| 2         | 3       | 3, 1      | 3              |
| 3         | 3, 2, 1 | 3, 1      | 3              |
| 4         | 3       | 3         | 3              |
| 5         | 3       | 3         | 3              |
| 6         | 3       | 3         | 3              |
| 7         | 3, 2, 1 | 3, 2, 1   | 3, 2           |
| 8         | 3, 2, 1 | 3, 2, 1   | 3, 2           |
| 9         | 3       | 3         | 3              |
| 10        | 3       | 3         | 3              |
| 11        | 3, 2    | 3, 2      | 3              |
| 12        | 3, 2    | 3         | 3, 2           |
| 13        | 3, 2    | 3, 2, 1   | 3, 2           |
| 14        | 3, 2    | 3, 2, 1   | 3              |
| 15        | 3       | 3         | 3              |
| 16        | 3       | 3         | 3              |
| 17        | 3, 2    | 3         | 3              |
| 18        | 3       | 3         | 3              |
| 19        | 3, 2    | 3, 2      | 3              |
| 20        | 3       | 3         | 3              |
| 21        | 3, 2    | 3, 2, 1   | 3, 2           |
| 22        | 3, 2    | 3, 2, 1   | 3, 2           |
| 23        | 3, 2    | 3         | 3              |
| 24        | 3       | 3         | 3              |
| 25        | 3       | 3, 1      | 3              |
| 26        | 3, 2, 1 | 3, 2, 1   | 3              |
| 27        | 3, 2    | 3, 2, 1   | 3, 2           |
| 28        | 3       | 3         | 3              |
| 29        | 3       | 3         | 3              |
| 30        | 3       | 3         | 3              |
| 31        | 3       | 3         | 3              |
| 32        | 3, 2    | 3, 2, 1   | 3              |
| 33        | 3, 2, 1 | 3, 2, 1   | 3              |
| 34        | 3, 2    | 3, 2, 1   | 3, 2           |
| 35        | 3       | 3, 1      | 3              |
| 36        | 3, 2    | 3         | 3              |
| 37        | 3, 1    | 3, 2, 1   | 3              |

|    |         |         |         |
|----|---------|---------|---------|
| 38 | 3       | 3       | 3       |
| 39 | 3, 2    | 3, 2, 1 | 3       |
| 40 | 3, 2    | 3       | 3, 1    |
| 41 | 3, 2, 1 | 3, 2, 1 | 3       |
| 42 | 3       | 3       | 3       |
| 43 | 3, 1    | 3, 1    | 3       |
| 44 | 3, 2    | 3, 2, 1 | 3, 2, 1 |
| 45 | 3, 2, 1 | 3, 1    | 3       |
| 46 | 3       | 3       | 3       |
| 47 | 3       | 3, 1    | 3       |
| 48 | 3       | 3, 1    | 3       |
| 49 | 3       | 3, 1    | 3       |
| 50 | 3       | 3, 1    | 3       |
| 51 | 3, 2    | 3, 2, 1 | 3       |
| 52 | 3       | 3       | 3       |
| 53 | 3, 2, 1 | 3, 2, 1 | 3       |
| 54 | 3       | 3       | 3, 1    |
| 55 | 3, 2    | 3       | 3, 2, 1 |
| 56 | 3       | 3       | 3       |
| 57 | 3, 2, 1 | 3       | 3       |
| 58 | 3       | 3       | 3       |
| 59 | 3, 2, 1 | 3, 2, 1 | 3, 2    |
| 60 | 3, 2    | 3, 1    | 3       |
| 61 | 3       | 3       | 3       |
| 62 | 3       | 3, 1    | 3       |
| 63 | 3       | 3, 1    | 3       |
| 64 | 3       | 3       | 3       |
| 65 | 3, 2    | 3       | 3, 2    |
| 66 | 3       | 3       | 3       |

|                       |             |
|-----------------------|-------------|
| <b>Forest</b>         |             |
| Provisioning services | 100         |
| Regulating            | 46.96969697 |
| Cultural              | 18.18181818 |
|                       |             |
| <b>Grassland</b>      |             |
| Provisioning          | 100         |
| Regulating            | 30.3030303  |
| Cultural              | 48.48484848 |
|                       |             |
| <b>Agro ecosystem</b> |             |

|              |             |
|--------------|-------------|
| Provisioning | 100         |
| Regulating   | 18.18181818 |
| cultural     | 6.060606061 |

**Table S2: Scores given to different ESS as perceived by villagers (the primary stakeholders)**

**Classification of ESS on Score : 0 (lowest) to 10 (highest) scale.**

| H. hold | A*  | B*  | C* | D* | E* | F* | G* | H* | I* | J* | K* | L*  | M* | N* | O* | P* | Q* | R* | S* | T*  | U* | V* | W* | X* | Y* |
|---------|-----|-----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|-----|----|----|----|----|----|
| 1       | 10  | 10  | 9  | 9  | 3  | 6  | 10 | 2  | 0  | 7  | 0  | 10  | 10 | 8  | 10 | 8  | 6  | 9  | 10 | 10  | 10 | 8  | 10 | 9  | 10 |
| 2       | 10  | 10  | 8  | 6  | 1  | 5  | 1  | 2  | 0  | 9  | 0  | 10  | 10 | 9  | 10 | 6  | 4  | 9  | 10 | 10  | 10 | 7  | 10 | 9  | 10 |
| 3       | 10  | 9.5 | 6  | 2  | 1  | 1  | 5  | 2  | 0  | 8  | 0  | 10  | 10 | 8  | 10 | 9  | 9  | 10 | 10 | 10  | 10 | 9  | 10 | 9  | 10 |
| 4       | 10  | 9   | 10 | 1  | 2  | 1  | 4  | 1  | 0  | 7  | 0  | 9   | 10 | 8  | 8  | 4  | 2  | 10 | 6  | 10  | 10 | 6  | 9  | 10 | 9  |
| 5       | 10  | 9.5 | 9  | 0  | 0  | 1  | 6  | 1  | 0  | 5  | 0  | 9.5 | 10 | 8  | 7  | 8  | 4  | 8  | 3  | 10  | 10 | 7  | 8  | 8  | 5  |
| 6       | 10  | 8   | 8  | 0  | 0  | 0  | 10 | 0  | 1  | 1  | 0  | 10  | 9  | 6  | 6  | 7  | 6  | 7  | 6  | 10  | 9  | 9  | 8  | 8  | 8  |
| 7       | 10  | 9.5 | 7  | 3  | 0  | 0  | 9  | 0  | 1  | 4  | 1  | 10  | 9  | 6  | 9  | 6  | 9  | 8  | 6  | 10  | 9  | 3  | 9  | 10 | 3  |
| 8       | 9.5 | 10  | 9  | 4  | 1  | 2  | 3  | 0  | 1  | 7  | 0  | 10  | 7  | 9  | 8  | 9  | 6  | 7  | 9  | 9   | 9  | 6  | 9  | 4  | 8  |
| 9       | 9.5 | 10  | 9  | 1  | 1  | 1  | 2  | 0  | 1  | 6  | 0  | 9.5 | 6  | 10 | 7  | 9  | 3  | 7  | 10 | 9.5 | 8  | 2  | 8  | 3  | 9  |
| 10      | 9.5 | 8.5 | 8  | 1  | 2  | 0  | 2  | 1  | 1  | 1  | 1  | 10  | 4  | 10 | 9  | 10 | 9  | 7  | 8  | 9   | 10 | 4  | 9  | 2  | 9  |
| 11      | 10  | 9   | 4  | 2  | 1  | 2  | 2  | 1  | 0  | 5  | 0  | 10  | 7  | 10 | 10 | 5  | 6  | 6  | 7  | 9   | 9  | 6  | 9  | 1  | 7  |
| 12      | 10  | 10  | 4  | 1  | 2  | 2  | 1  | 2  | 0  | 8  | 0  | 10  | 7  | 8  | 7  | 6  | 10 | 8  | 9  | 10  | 9  | 7  | 9  | 6  | 9  |
| 13      | 10  | 9.5 | 5  | 2  | 3  | 3  | 3  | 0  | 0  | 9  | 0  | 10  | 8  | 6  | 10 | 3  | 7  | 8  | 10 | 8   | 8  | 8  | 7  | 8  | 9  |
| 14      | 10  | 10  | 6  | 4  | 1  | 1  | 1  | 0  | 0  | 9  | 0  | 10  | 9  | 6  | 9  | 1  | 5  | 8  | 10 | 6   | 8  | 5  | 7  | 3  | 9  |
| 15      | 10  | 10  | 2  | 1  | 2  | 1  | 2  | 0  | 1  | 7  | 0  | 10  | 10 | 10 | 6  | 1  | 1  | 10 | 10 | 9   | 10 | 9  | 8  | 5  | 10 |
| 16      | 10  | 7   | 1  | 1  | 1  | 1  | 1  | 1  | 2  | 6  | 0  | 10  | 10 | 9  | 10 | 7  | 3  | 7  | 9  | 9   | 10 | 10 | 9  | 2  | 10 |
| 17      | 10  | 8   | 2  | 0  | 0  | 3  | 5  | 3  | 0  | 2  | 0  | 10  | 7  | 8  | 9  | 9  | 8  | 7  | 9  | 9   | 9  | 10 | 7  | 5  | 8  |
| 18      | 10  | 9   | 1  | 1  | 1  | 2  | 1  | 0  | 0  | 1  | 0  | 10  | 9  | 10 | 8  | 9  | 9  | 5  | 10 | 10  | 9  | 8  | 9  | 7  | 8  |
| 19      | 10  | 10  | 0  | 0  | 1  | 4  | 4  | 2  | 1  | 1  | 2  | 9.5 | 9  | 9  | 7  | 10 | 9  | 9  | 8  | 8   | 7  | 7  | 8  | 7  | 7  |
| 20      | 9.5 | 9.5 | 1  | 0  | 0  | 0  | 6  | 8  | 1  | 1  | 1  | 10  | 10 | 9  | 10 | 7  | 10 | 6  | 8  | 10  | 7  | 6  | 9  | 4  | 7  |
| 21      | 10  | 9.5 | 1  | 1  | 2  | 1  | 3  | 1  | 1  | 9  | 0  | 10  | 6  | 9  | 6  | 8  | 7  | 9  | 10 | 10  | 6  | 5  | 4  | 8  | 9  |
| 22      | 10  | 8   | 0  | 0  | 1  | 1  | 7  | 1  | 0  | 4  | 0  | 10  | 9  | 10 | 7  | 5  | 7  | 9  | 10 | 8   | 4  | 2  | 2  | 4  | 6  |
| 23      | 10  | 9   | 4  | 0  | 0  | 2  | 4  | 0  | 1  | 4  | 1  | 10  | 9  | 7  | 10 | 1  | 5  | 7  | 7  | 10  | 8  | 1  | 2  | 2  | 8  |
| 24      | 10  | 7   | 2  | 2  | 1  | 1  | 2  | 9  | 2  | 2  | 1  | 9.5 | 10 | 9  | 7  | 9  | 10 | 10 | 6  | 9   | 6  | 1  | 2  | 1  | 9  |
| 25      | 10  | 8   | 3  | 1  | 1  | 3  | 6  | 1  | 1  | 7  | 0  | 10  | 9  | 10 | 9  | 9  | 2  | 5  | 5  | 9   | 6  | 1  | 8  | 1  | 10 |
| 26      | 10  | 7   | 7  | 5  | 1  | 1  | 7  | 1  | 1  | 9  | 0  | 10  | 9  | 10 | 9  | 10 | 8  | 7  | 10 | 10  | 7  | 2  | 8  | 1  | 8  |

|    |     |     |    |   |   |   |    |   |   |    |   |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
|----|-----|-----|----|---|---|---|----|---|---|----|---|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| 27 | 10  | 9   | 9  | 4 | 1 | 0 | 9  | 1 | 0 | 1  | 0 | 9   | 8   | 2   | 9   | 7  | 9  | 9  | 10 | 10 | 7  | 3  | 9  | 9  | 9  |
| 28 | 10  | 9   | 10 | 2 | 0 | 0 | 2  | 1 | 1 | 1  | 1 | 10  | 10  | 1   | 9   | 3  | 9  | 9  | 9  | 9  | 5  | 5  | 7  | 9  | 7  |
| 29 | 10  | 9.5 | 10 | 1 | 1 | 1 | 1  | 3 | 1 | 10 | 1 | 10  | 8   | 2   | 9.5 | 2  | 9  | 9  | 9  | 9  | 6  | 5  | 7  | 8  | 9  |
| 30 | 10  | 10  | 8  | 2 | 1 | 1 | 10 | 2 | 1 | 3  | 1 | 10  | 8   | 3   | 8.5 | 10 | 10 | 10 | 8  | 9  | 9  | 5  | 7  | 7  | 7  |
| 31 | 10  | 10  | 5  | 1 | 1 | 0 | 10 | 1 | 0 | 1  | 1 | 10  | 10  | 1   | 10  | 2  | 9  | 8  | 10 | 10 | 10 | 6  | 7  | 6  | 5  |
| 32 | 10  | 10  | 5  | 0 | 1 | 1 | 2  | 0 | 1 | 1  | 1 | 10  | 10  | 1   | 10  | 5  | 9  | 6  | 10 | 8  | 10 | 9  | 5  | 8  | 6  |
| 33 | 10  | 10  | 9  | 0 | 1 | 2 | 5  | 4 | 1 | 1  | 0 | 10  | 10  | 7   | 9   | 7  | 4  | 6  | 7  | 8  | 9  | 9  | 9  | 8  | 9  |
| 34 | 9.5 | 7   | 2  | 1 | 0 | 1 | 3  | 1 | 1 | 3  | 1 | 10  | 10  | 4   | 9   | 8  | 2  | 2  | 6  | 7  | 9  | 9  | 8  | 8  | 4  |
| 35 | 10  | 9.5 | 1  | 1 | 0 | 2 | 3  | 1 | 0 | 3  | 1 | 10  | 10  | 9   | 8   | 10 | 1  | 1  | 10 | 10 | 10 | 6  | 6  | 4  | 1  |
| 36 | 10  | 9.5 | 0  | 0 | 0 | 3 | 3  | 1 | 1 | 3  | 1 | 10  | 10  | 10  | 8   | 10 | 1  | 1  | 9  | 9  | 9  | 9  | 8  | 7  | 9  |
| 37 | 10  | 8   | 0  | 2 | 0 | 3 | 1  | 2 | 1 | 5  | 1 | 10  | 10  | 10  | 10  | 10 | 1  | 1  | 8  | 10 | 10 | 7  | 7  | 6  | 9  |
| 38 | 10  | 10  | 0  | 3 | 0 | 4 | 1  | 2 | 0 | 5  | 1 | 10  | 9.5 | 10  | 10  | 3  | 3  | 5  | 5  | 9  | 7  | 8  | 8  | 4  | 2  |
| 39 | 10  | 10  | 2  | 1 | 0 | 7 | 0  | 1 | 1 | 5  | 1 | 10  | 10  | 9   | 9   | 7  | 8  | 9  | 10 | 9  | 9  | 10 | 9  | 6  | 4  |
| 40 | 10  | 9   | 1  | 1 | 0 | 1 | 1  | 1 | 1 | 2  | 1 | 10  | 9.5 | 7   | 9   | 9  | 9  | 7  | 10 | 9  | 9  | 6  | 8  | 3  | 7  |
| 41 | 10  | 8   | 2  | 1 | 0 | 1 | 1  | 2 | 0 | 1  | 1 | 10  | 10  | 7   | 10  | 9  | 3  | 5  | 10 | 9  | 10 | 9  | 7  | 4  | 9  |
| 42 | 10  | 9   | 1  | 1 | 1 | 0 | 4  | 2 | 1 | 1  | 1 | 10  | 9   | 5   | 10  | 9  | 2  | 1  | 8  | 9  | 10 | 8  | 7  | 4  | 9  |
| 43 | 10  | 10  | 5  | 1 | 1 | 1 | 3  | 0 | 1 | 1  | 1 | 10  | 10  | 7   | 10  | 9  | 2  | 1  | 8  | 10 | 8  | 9  | 7  | 8  | 2  |
| 44 | 10  | 10  | 8  | 2 | 2 | 8 | 4  | 0 | 1 | 1  | 1 | 10  | 10  | 8   | 9   | 9  | 8  | 7  | 8  | 10 | 8  | 10 | 5  | 3  | 4  |
| 45 | 10  | 10  | 9  | 2 | 1 | 1 | 2  | 0 | 1 | 0  | 1 | 10  | 10  | 6   | 9   | 10 | 7  | 8  | 8  | 10 | 7  | 7  | 9  | 9  | 2  |
| 46 | 10  | 10  | 10 | 0 | 1 | 1 | 1  | 1 | 1 | 0  | 1 | 9.5 | 10  | 10  | 9   | 9  | 9  | 9  | 8  | 10 | 8  | 7  | 7  | 8  | 10 |
| 47 | 10  | 10  | 10 | 3 | 1 | 1 | 7  | 1 | 2 | 0  | 1 | 9.5 | 10  | 10  | 9   | 9  | 10 | 9  | 9  | 9  | 8  | 6  | 5  | 5  | 6  |
| 48 | 10  | 10  | 7  | 1 | 1 | 2 | 7  | 0 | 1 | 1  | 0 | 10  | 10  | 10  | 9   | 10 | 9  | 9  | 10 | 9  | 9  | 9  | 9  | 10 | 8  |
| 49 | 10  | 7   | 9  | 4 | 1 | 7 | 6  | 0 | 1 | 1  | 1 | 10  | 10  | 9   | 9   | 10 | 4  | 4  | 10 | 10 | 9  | 9  | 10 | 6  | 8  |
| 50 | 10  | 8   | 10 | 0 | 1 | 1 | 5  | 0 | 0 | 4  | 1 | 10  | 10  | 8   | 9   | 10 | 6  | 5  | 10 | 10 | 9  | 10 | 9  | 6  | 5  |
| 51 | 10  | 9   | 8  | 2 | 1 | 1 | 8  | 0 | 0 | 7  | 1 | 10  | 10  | 8.5 | 10  | 9  | 8  | 8  | 8  | 9  | 9  | 5  | 8  | 6  | 5  |
| 52 | 10  | 9.5 | 6  | 1 | 0 | 2 | 1  | 0 | 0 | 1  | 1 | 9   | 10  | 10  | 8   | 9  | 5  | 6  | 7  | 9  | 10 | 4  | 8  | 3  | 9  |
| 53 | 10  | 10  | 4  | 0 | 0 | 0 | 4  | 1 | 1 | 5  | 0 | 9   | 10  | 10  | 7   | 9  | 5  | 6  | 9  | 9  | 10 | 4  | 8  | 5  | 9  |
| 54 | 10  | 10  | 1  | 2 | 2 | 0 | 10 | 1 | 1 | 1  | 0 | 10  | 10  | 5   | 10  | 8  | 5  | 8  | 6  | 7  | 9  | 7  | 8  | 7  | 5  |
| 55 | 10  | 9.5 | 10 | 1 | 1 | 0 | 2  | 1 | 2 | 8  | 0 | 9   | 10  | 6   | 10  | 8  | 5  | 7  | 10 | 6  | 9  | 6  | 7  | 2  | 8  |
| 56 | 10  | 8   | 9  | 2 | 0 | 1 | 1  | 1 | 2 | 2  | 0 | 10  | 10  | 2   | 10  | 8  | 3  | 5  | 10 | 7  | 8  | 8  | 6  | 1  | 5  |

|                   |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 57                | 9.5         | 6           | 7           | 0           | 0           | 1           | 1           | 1           | 1           | 1           | 0           | 10          | 10          | 1           | 9           | 10          | 8           | 7           | 8           | 7           | 8           | 8           | 7           | 1           | 4           |
| 58                | 9.5         | 8           | 10          | 1           | 0           | 2           | 1           | 3           | 1           | 2           | 0           | 10          | 9           | 10          | 9           | 8           | 6           | 7           | 8           | 7           | 8           | 5           | 4           | 3           | 4           |
| 59                | 5           | 4           | 9           | 6           | 1           | 1           | 5           | 2           | 1           | 1           | 0           | 10          | 9.5         | 10          | 9           | 5           | 5           | 4           | 9           | 5           | 6           | 5           | 3           | 2           | 2           |
| 60                | 4           | 2           | 7           | 0           | 1           | 1           | 2           | 1           | 1           | 1           | 0           | 9           | 10          | 7           | 10          | 3           | 6           | 9           | 6           | 9           | 9           | 2           | 1           | 1           | 4           |
| 61                | 6           | 2           | 2           | 2           | 0           | 1           | 7           | 2           | 1           | 1           | 0           | 10          | 10          | 6           | 10          | 1           | 8           | 9           | 7           | 9           | 9           | 1           | 1           | 3           | 2           |
| 62                | 4           | 1           | 1           | 1           | 0           | 1           | 3           | 4           | 1           | 1           | 0           | 9           | 9           | 9           | 10          | 10          | 9           | 9           | 6           | 7           | 8           | 1           | 1           | 3           | 2           |
| 63                | 6           | 2           | 7           | 1           | 0           | 0           | 2           | 2           | 0           | 1           | 0           | 10          | 8           | 10          | 10          | 9           | 3           | 7           | 10          | 8           | 10          | 1           | 2           | 1           | 2           |
| 64                | 4           | 5           | 8           | 1           | 0           | 0           | 1           | 1           | 0           | 1           | 0           | 9.5         | 9           | 10          | 10          | 6           | 6           | 8           | 9           | 10          | 9           | 2           | 1           | 1           | 1           |
| 65                | 5           | 2           | 0           | 0           | 0           | 0           | 1           | 1           | 2           | 1           | 1           | 9.5         | 8           | 2           | 10          | 5           | 2           | 3           | 6           | 8           | 6           | 1           | 1           | 2           | 2           |
| 66                | 7           | 5           | 0           | 0           | 1           | 0           | 1           | 2           | 1           | 1           | 0           | 9           | 9           | 10          | 9           | 5           | 2           | 2           | 6           | 6           | 5           | 2           | 2           | 1           | 1           |
| <b>Mean</b>       | <b>9.36</b> | <b>8.33</b> | <b>5.27</b> | <b>1.55</b> | <b>0.79</b> | <b>1.59</b> | <b>3.76</b> | <b>1.35</b> | <b>0.76</b> | <b>3.45</b> | <b>0.47</b> | <b>9.82</b> | <b>9.19</b> | <b>7.49</b> | <b>8.94</b> | <b>7.21</b> | <b>5.98</b> | <b>6.8</b>  | <b>8.35</b> | <b>8.89</b> | <b>8.42</b> | <b>5.94</b> | <b>6.76</b> | <b>5.07</b> | <b>6.53</b> |
| <b>SE</b>         | <b>0.20</b> | <b>0.29</b> | <b>0.44</b> | <b>0.21</b> | <b>0.09</b> | <b>0.22</b> | <b>0.35</b> | <b>0.19</b> | <b>0.07</b> | <b>0.36</b> | <b>0.07</b> | <b>0.04</b> | <b>0.15</b> | <b>0.35</b> | <b>0.14</b> | <b>0.34</b> | <b>0.35</b> | <b>0.31</b> | <b>0.21</b> | <b>0.15</b> | <b>0.18</b> | <b>0.35</b> | <b>0.32</b> | <b>0.35</b> | <b>0.36</b> |
| <b>Range</b>      | <b>6</b>    | <b>9</b>    | <b>10</b>   | <b>9</b>    | <b>3</b>    | <b>8</b>    | <b>10</b>   | <b>9</b>    | <b>2</b>    | <b>10</b>   | <b>2</b>    | <b>1</b>    | <b>6</b>    | <b>9</b>    | <b>4</b>    | <b>9</b>    | <b>9</b>    | <b>9</b>    | <b>7</b>    | <b>5</b>    | <b>6</b>    | <b>9</b>    | <b>9</b>    | <b>9</b>    | <b>9</b>    |
| <b>confidence</b> | <b>0.4</b>  | <b>0.57</b> | <b>0.88</b> | <b>0.42</b> | <b>0.19</b> | <b>0.43</b> | <b>0.71</b> | <b>0.39</b> | <b>0.15</b> | <b>0.73</b> | <b>0.13</b> | <b>0.09</b> | <b>0.3</b>  | <b>0.69</b> | <b>0.28</b> | <b>0.67</b> | <b>0.69</b> | <b>0.61</b> | <b>0.42</b> | <b>0.3</b>  | <b>0.36</b> | <b>0.69</b> | <b>0.65</b> | <b>0.71</b> | <b>0.7</b>  |

\*A=Green Fodder, B=Dry fodder, C= Drinking water, E=Aromatic herbs, F= Medicine, G= Bamboo, H=Agricultural implements, I=Timber, J=Pole, K=Broom/ropes, L=Fuelwood, M=Spring recharge, N=Erosion control, O=Purify Air, P=Purify water, Q=Soil moisture, R=Soil Fertility, S=Rain/Snow, T= Habitat, U=Nursery, V=Temple, W=Satisfaction, X=Student visit, Y =Nature lover

| <b>S. No</b> | <b>Local Name</b> | <b>habit</b> | <b>Species</b>                   | <b>Uses</b>        |
|--------------|-------------------|--------------|----------------------------------|--------------------|
| 1            | aakhan            | shrub        | <i>Rubus ellipticus</i>          | Wep.               |
| 2            | aakhanu           | herb         | <i>Fragaria sp.</i>              | Fod., Wep.         |
| 3            | aknadi            | climber      | <i>Cissampelos sp.</i>           | Fod., Med.         |
| 4            | albar             | herb         | <i>Rumex nepalensis</i>          | Fod., Med.         |
| 5            | ballakadi bel     | climber      | <i>Hedera nepalensis</i>         | Fod.               |
| 6            | ban               | tree         | <i>Quercus leucotrichophora</i>  | F.wood, Fod.       |
| 7            | banajwain         | herb         | <i>Micromera biflora</i>         | Med., Aro.         |
| 8            | bani              | tree         | <i>Quercus glauca</i>            | F.wood, Fod.       |
| 9            | banthu/balsum     | herb         | <i>Impatiens royalei</i>         | Fod.               |
| 10           | baragni bel       | climber      | <i>Elaeostema sp.</i>            | Fod.               |
| 11           | bel               | climber      | <i>Ichnocarpus frutescens</i>    | Med., Wep.         |
| 12           | bhekal            | shrub        | <i>Prinsepia utilis</i>          | Fod., Med., Spirt. |
| 13           | bhendi            | herb         | <i>Solanum zanthocarpus</i>      | Med.               |
| 14           | bhujnu            | herb         | <i>Gnaphalium sp.</i>            | For Ignition       |
| 15           | bharoosh          | herb         | <i>Echinops echinatus</i>        | Med.               |
| 16           | badah/bius        | tree         | <i>Salix alba</i>                | F.wood, Fod, Tim.  |
| 17           | brass             | tree         | <i>Rhododendron arboreum</i>     | F.wood, Med., Wep  |
| 18           | bashal            | tree         | <i>Salix denticulata</i>         | F.wood, Fod.,      |
| 19           | charmor/ chicha   | shrub        | <i>Plumbago zeylnica</i>         | Med.               |
| 20           | chil              | tree         | <i>Pinus roxburghii</i>          | F.wood, Tim.       |
| 21           | choti kathi       | herb         | <i>Indigofera pulchella</i>      | Med.               |
| 22           | chunni ghaas      | herb         | <i>Rubiaceae plant</i>           | Fod.               |
| 23           | daksha            | herb         | <i>Gypsophila sp.</i>            | Fod.               |
| 24           | devdar            | tree         | <i>Cedrus deodara</i>            | F.wood, Tim, Oil   |
| 25           | dholu ghaas       | grass        | <i>Eragrostis sp.</i>            | Fod.               |
| 26           | dhudali           | tree         | <i>Ficus palmata</i>             | Fod.               |
| 27           | dhudhala          | herb         | <i>Anaphalis sps.</i>            | Fod.               |
| 28           | dhudu             | herb         | <i>Euphorbia sp.</i>             | Fod.               |
| 29           | dhullen bail      | climber      | <i>Hydrangea altissima</i>       | Fod.               |
| 30           | dhumri            | tree         | <i>Cedrela serrata</i>           | F.wood             |
| 31           | dhurla            | herb         | <i>Inula cappa</i>               | Fod.               |
| 32           | dub               | grass        | <i>Cynodon dactylis</i>          | Fod., Rel.         |
| 33           | duman tuli        | herb         | <i>Adiantum sp.</i>              | Fod.               |
| 34           | fool kali         | herb         | family: <i>Acanthaceae</i>       | Fod.               |
| 35           | fullan            | herb         | <i>Ageratum conyzoides</i>       | Fod.               |
| 36           | garnu             | shrub        | <i>Carissa spinarum</i>          | Fod., Wep          |
| 37           | gudbinni          | herb         | <i>Adiantum capillus-veneris</i> | Med.               |
| 38           | gulabadi          | shrub        | <i>Rubus sp.</i>                 | Spirt.             |
| 39           | gummar            | herb         | <i>Bidens pilosa</i>             | Fod.               |



|    |               |         |                                   |                    |
|----|---------------|---------|-----------------------------------|--------------------|
| 40 | handa         | shrub   | <i>Boehermia platyphylla</i>      | Fod.               |
| 41 | isabgol       | herb    | <i>Plantago tibetica</i>          | Med.               |
| 42 | janglaru      | herb    | <i>Dicliptera roxburghiana</i>    | Fod.               |
| 43 | jangli ber    | tree    | <i>Salix sp.</i>                  | F.wood             |
| 44 | jolder        | shrub   | <i>Wikstroemia sp.</i>            | Fod.               |
| 45 | jungli maah   | herb    | <i>Desmodium sp.</i>              | Fod.               |
| 46 | jungli pudina | herb    | <i>Mentha longifolia</i>          | Med., Aro.         |
| 47 | jhanjhetu     | shrub   | <i>Cotoneaster sp.</i>            | F.wood, Imple.     |
| 48 | kaali basuti  | shrub   | <i>Eupatorium adenophorum</i>     | Med.               |
| 49 | kaali ghaas   | grass   | <i>Eragrostis sp.</i>             | Fod.               |
| 50 | kai           | grass   | <i>Erianthus sp.</i>              | Fod.               |
| 51 | kainth        | tree    | <i>Pyrus pashia</i>               | F.wood, Fod.       |
| 52 | kalikathi     | herb    | <i>Indigofera gerardiana</i>      | Dye                |
| 53 | kali          | herb    | <i>Calamantha sp.</i>             | Med.               |
| 54 | karmaru       | tree    | <i>Albizia julibrissin</i>        | F.wood, Fod., Med. |
| 55 | kashmal       | shrub   | <i>Berberis lycium</i>            | F.wood, Fod., Med. |
| 56 | katagri bel   | climber | <i>Clematis sp.</i>               | Fod.               |
| 57 | kharash       | sedge   | <i>Cyperus niveus</i>             | Fod.               |
| 58 | kharonkhada   | grass   | <i>Arundinella sp.</i>            | Fod.               |
| 59 | khigra ghaas  | grass   | <i>Avena sps</i>                  | Fod.               |
| 60 | khati malori  | herb    | <i>Oxalis corniculata</i>         | Fod., Wep          |
| 61 | khatta amlu   | herb    | <i>Polygonum capitata</i>         | Fod., Wep          |
| 62 | khidak        | tree    | <i>Celtis australis</i>           | F.wood, Fod.       |
| 63 | khidki        | shrub   | <i>Hypericum sp.</i>              | Fod.               |
| 64 | khor          | tree    | <i>Juglans regia</i>              | F.wood, Wep        |
| 65 | khitadi       | herb    | <i>Anaphalis sp.</i>              | Med.               |
| 66 | kyanyee       | shrub   | <i>Albizia lebbeck</i>            | F.wood, Med.       |
| 67 | lal phulnu    | shrub   | <i>Lantana camara</i>             | F.wood             |
| 68 | lingdu        | herb    | <i>Diplazium esculentum</i>       | Wep                |
| 69 | liggi         | shrub   | <i>Sarcococca</i>                 | For cattleshed     |
| 70 | lote          | herb    | <i>Lonicera sp.</i>               | Fod.               |
| 71 | malora        | herb    | <i>Rumex hastatus</i>             | Wep.               |
| 72 | malu          | tree    | <i>Bauhinia vahlii</i>            | Fod.               |
| 73 | masreen       | monocot | <i>Hypoxis aurea</i>              | Fod.               |
| 74 | mathaila      | herb    | <i>Gerbera sp.</i>                | Fod.               |
| 75 | minki         | herb    | <i>Centella sp.</i>               | Med.               |
| 76 | moru          | tree    | <i>Quercus floribunda</i>         | F.wood, Fod.       |
| 77 | naknani       | herb    | <i>Valeriana sp.</i>              | Med., Aro.         |
| 78 | nallu         | grass   | <i>Oplismenus SP.</i>             | Fod.               |
| 79 | nasrin        | herb    | <i>Boenninghausenia albiflora</i> | Fod.               |
| 80 | nigal         | grass   | <i>Arundinaria falcata</i>        | Fod., Baskets      |

|    |             |       |                            |                       |
|----|-------------|-------|----------------------------|-----------------------|
| 81 | nilkanthi   | herb  | <i>Ajuga sp.</i>           | Med.                  |
| 82 | nagroha     | grass | <i>Apluda sp.</i>          | Fod.                  |
| 83 | oee         | tree  | <i>Albizia sp.</i>         | F.wood                |
| 84 | papdya      | tree  | <i>Quercus sp.</i>         | F.wood, Fod.          |
| 85 | patana      | shrub | <i>Daphnae</i>             | Wep, Paper            |
| 86 | padada      | shrub | <i>Leptodermis sp.</i>     | Fod.                  |
| 87 | pajja       | tree  | <i>Prunus padus</i>        | F.wood, Fod.          |
| 88 | puthkada    | herb  | <i>Achyranthus aspera</i>  | Med.                  |
| 89 | peelu fool  | herb  | <i>Potentilla sp.</i>      | Fod.                  |
| 90 | rekhni      | shrub | <i>Elaeagnus sp.</i>       | Fod.                  |
| 91 | riddiyaan   | shrub | <i>Viburnum sp.</i>        | Fod., Wep             |
| 92 | shaprotadi  | herb  | <i>Berginia sp.</i>        | Med.                  |
| 93 | shayanru    | shrub | <i>Debregeasia</i>         | Fod.                  |
| 94 | tarod       | herb  | <i>Gerbera sp.</i>         | Fod.                  |
| 95 | timali      | herb  | <i>Flemingia sp.</i>       | Fod.                  |
| 96 | tirmaru     | shrub | <i>Zanthoxylum armatum</i> | Med., Wep             |
| 97 | van haldi   | herb  | <i>Curcuma sp.</i>         | Fod., Med             |
| 98 | van bhabhri | herb  | <i>Origanum vulgare</i>    | Fod., Med., Wep, Aro. |

F.wood: fuelwood, Fod.: fodder, Wep: wild edible plant, Med: medicinal, Aro.: aromatic, Imple.: Agricultural implements, Timb.: timber, Spirit.: Spiritual, Rel.: religious

Figure S1. Roles of different stakeholders as defined in the Memorandum of Agreement

