

# Project Selection Tools by Dorji Penjore (work under progress)

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## 4. Ecological Diversity and Resilience

### Indicators

|     |  |    |
|-----|--|----|
| 4.  | Ecological Diversity and Resilience .....                          | 1  |
| 1.  | Air pollution .....  | 2  |
| 2.  | Air (supply side) .....  | 2  |
| 3.  | Air (demand side) .....  | 2  |
| 4.  | Global warming and climate change (activity and life habits) ..... | 2  |
| 5.  | Water pollution .....  | 2  |
| 6.  | Water pollution2 .....   | 3  |
| 7.  | Water sources .....  | 3  |
| 8.  | Water (supply side) .....  | 3  |
| 9.  | Water (demand side) .....  | 3  |
| 10. | Land (supply side) .....   | 4  |
| 11. | Land (demand side) .....   | 4  |
| 12. | Manure .....   | 4  |
| 13. | Forests (supply side) .....  | 4  |
| 14. | Forests (demand side) .....  | 5  |
| 15. | Forest fire .....  | 5  |
| 16. | Land degradation .....   | 5  |
| 17. | Diversity1: crops .....  | 5  |
| 18. | Diversity2: animals .....  | 5  |
| 19. | Diversity3: trees .....  | 5  |
| 20. | Diversity4: fruits .....   | 6  |
| 21. | Diversity5: vegetables .....                                       | 6  |
| 22. | Abodes of deities and spirits .....                                | 6  |
| 23. | Access to natural resources .....                                  | 6  |
| 24. | Indigenous resource management .....                               | 6  |
| 25. | Natural disaster .....   | 7  |
| 26. | Household utensils .....   | 7  |
| 27. | Fuel wood consumption .....  | 7  |
| 28. | Bukhari wood consumption .....                                     | 7  |
| 29. | Waste disposal .....   | 8  |
| 30. | Waste1: waste .....  | 8  |
| 31. | Waste2: plastic .....  | 8  |
| 32. | Waste3: paper .....  | 8  |
| 33. | Waste4: glass .....  | 8  |
| 34. | Waste5: metal .....  | 9  |
| 35. | Waste6: vegetables .....   | 9  |
| 36. | Scrap industry .....   | 9  |
| 37. | Recycling industry .....   | 9  |
| 38. | Automobile use .....   | 9  |
| 39. | Alternative transport .....  | 10 |

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| <b>1. Air pollution</b>      |   |                                  |                          |
|------------------------------|---|----------------------------------|--------------------------|
| Will deteriorate air quality | Not sure if it will deteriorate air quality | Will not deteriorate air quality | Will improve air quality |
| 1                            | 2   | 3                                | 4                        |

| <b>2. Air (supply side)</b>                                     |   |  |   |
|---|---|--|---|
| Will considerably deteriorate quality and quantity of clean air | Not sure if it will deteriorate quality and quantity of clean air | Will not deteriorate quality and quantity of clean air | Will considerably improve quality and quantity of clean air |
| 1   | 2   | 3  | 4   |

| <b>3. Air (demand side)</b>            |   |  |  |
|--|---|--|--|
| Will increase consumption of clean air | Not sure if it will increase consumption of clean air | Will not increase consumption of clean air | Will decrease consumption of clean air |
| 1                                      | 2   | 3  | 4                                      |

| <b>4. Global warming and climate change (activity and life habits)</b> |   |                                |                                  |
|--|---|--------------------------------|----------------------------------|
| Will add to global warming   | Not sure if it will add to global warming | Will not add to global warming | Will help prevent global warming |
| 1  | 2   | 3                              | 4                                |

| <b>5. Water pollution</b>  |   |  |   |
|--|---|--|---|
| Will increase sources of water pollution such as chemical fertilizers, pesticides, insecticides, fungicides, | Not sure if it will increase sources of water pollution such as chemical fertilizers, pesticides, insecticides, | Will not increase sources of water pollution such as chemical fertilizers, pesticides, insecticides, fungicides, | Will prevent sources of water pollution such as chemical fertilizers, pesticides, insecticides, fungicides, |

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|            |                           |            |            |
|------------|---------------------------|------------|------------|
| herbicides | fungicides,<br>herbicides | herbicides | herbicides |
| 1          | 2                         | 3          | 4          |

|   |  |   |   |
|---|--|---|---|
| <b>6. Water pollution<sup>2</sup></b>   |  |   |   |
| Will increase sources of water pollution such as washing of cloths, garbage dumping, automobile workshops etc | Not sure if it will increase sources of water pollution such as washing of cloths, garbage dumping, automobile workshops etc | Will not increase sources of water pollution such as washing of cloths, garbage dumping, automobile workshops etc | Will decrease sources of water pollution such as washing of cloths, garbage dumping, automobile workshops etc |
| 1   | 2  | 3   | 4   |

|  |   |  |  |
|--|---|--|--|
| <b>7. Water sources</b>  |   |  |  |
| Will result in loss or depletion of water sources like spring, fountains, lakes, springs, rivers | Not sure if it will result in loss or depletion of water sources like spring, fountains, lakes, springs, rivers | Will not result in loss or depletion of water sources like spring, fountains, lakes, springs, rivers | Will conserve water sources like spring, fountains, lakes, springs, rivers |
| 1  | 2   | 3  | 4  |

|   |  |   |   |
|---|--|---|---|
| <b>8. Water (supply side)</b>   |  |   |   |
| Will reduce quantity and quality of water supply (for home, agriculture and industries) | Not sure if it will reduce quantity and quality of water supply (for home, agriculture and industries) | Will not reduce scarcity of quantity and quality of water supply (for home, agriculture and industries) | Will increase quantity and quality of water supply (for home, agriculture and industries) |
| 1   | 2  | 3   | 4   |

|                               |                                     |                                   |                               |
|-------------------------------|-------------------------------------|-----------------------------------|-------------------------------|
| <b>9. Water (demand side)</b> |                                     |                                   |                               |
| Will increase demand for more | Not sure if it will increase demand | Will not increase demand for more | Will decrease demand for more |

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|  |   |  |  |
|--|---|--|--|
| water for home, agriculture and industries | for more water for home, agriculture and industries | water for home, agriculture and industries | water for home, agriculture and industries |
| 1  | 2   | 3  | 4  |

### 10. Land (supply side)

|  |   |  |  |
|--|---|--|--|
| Will decrease quantity of land available for farming | Not sure if it will decrease quantity of land available for farming | Will not decrease quantity of land available for farming | Will increase quantity of land available for farming |
| 1  | 2   | 3  | 4  |

### 11. Land (demand side)

|   |  |   |   |
|---|--|---|---|
| Will increase demand for more land for cultivation, construction and industries | Not sure if it will increase demand for more land for cultivation, construction and industries | Will not increase demand for more land for cultivation, construction and industries | Will decrease demand for more land for cultivation, construction and industries |
| 1   | 2  | 3   | 4   |

### 12. Manure

|  |   |  |                               |
|--|---|--|-------------------------------|
| Will encourage use of chemical fertilizers | Not sure if use of chemical fertilizers will be encourage | Will not encourage use of chemical fertilizers | Will encourage use of manures |
| 1  | 2   | 3  | 4                             |

### 13. Forests (supply side)

|                      |  |   |                       |
|----------------------|--|---|-----------------------|
| Will deplete forests | Not sure if it will result in depletion of forests | Will not result in depletion of forests | Will conserve forests |
| 1                    | 2  | 3                                       | 4                     |

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| <b>14. Forests (demand side)</b>                         |   |  |  |
|--|---|--|--|
| Will result in increased consumption of forest resources | Not sure of it will result in increased consumption of forest resources | Will not result in increased consumption of forest resources | Will result in decreased consumption of forest resources |
| 1  | 2   | 3  | 4  |

| <b>15. Forest fire</b>                 |   |  |  |
|--|---|--|--|
| Will increase incidence of forest fire | Not sure of it will increase incidence of forest fire | Will not increase incidence of forest fire | Will decrease incidence of forest fire |
| 1                                      | 2   | 3  | 4                                      |

| <b>16. Land degradation</b> |                                  |                       |                   |
|-----------------------------|----------------------------------|-----------------------|-------------------|
| Will degrade land           | Not sure if it will degrade land | Will not degrade land | Will improve land |
| 1                           | 2                                | 3                     | 4                 |

| <b>17. Diversity1: crops</b>         |   |  |                                     |
|--------------------------------------|---|--|-------------------------------------|
| Will discourage a diversity of crops | Not sure if it will discourage a diversity of crops | Will not discourage a diversity of crops | Will encourage a diversity of crops |
| 1                                    | 2   | 3  | 4                                   |

| <b>18. Diversity2: animals</b>         |   |  |                                       |
|--|---|--|---------------------------------------|
| Will discourage a diversity of animals | Not sure if it will discourage a diversity of animals | Will not discourage a diversity of animals | Will encourage a diversity of animals |
| 1                                      | 2   | 3  | 4                                     |

| <b>19. Diversity3: trees</b>         |   |  |                                     |
|--------------------------------------|---|--|-------------------------------------|
| Will discourage a diversity of trees | Not sure if it will discourage a diversity of trees | Will not discourage a diversity of trees | Will encourage a diversity of trees |

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|   |   |   |   |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

| <b>20. Diversity4: fruits</b>         |  |   |                                      |
|---------------------------------------|--|---|--------------------------------------|
| Will discourage a diversity of fruits | Not sure if it will discourage a diversity of fruits | Will not discourage a diversity of fruits | Will encourage a diversity of fruits |
| 1                                     | 2  | 3   | 4                                    |

| <b>21. Diversity5: vegetables</b>         |  |   |  |
|---|--|---|--|
| Will discourage a diversity of vegetables | Not sure if it will discourage a diversity of vegetables | Will not discourage a diversity of vegetables | Will encourage a diversity of vegetables |
| 1   | 2  | 3   | 4  |

| <b>22. Abodes of deities and spirits</b>  |  |   |  |
|---|--|---|--|
| Will destroy natural bodies that are considered to be abodes of deities and spirits | Not sure if it will destroy natural bodies that are considered to be abodes of deities and spirits | Will not destroy natural bodies that are considered to be abodes of deities and spirits | Will preserve natural bodies that are considered to be abodes of deities and spirits |
| 1   | 2  | 3   | 4  |

| <b>23. Access to natural resources</b>                         |   |  |  |
|--|---|--|--|
| Will restrict people's traditional access to natural resources | Not sure if it will restrict people's traditional access to natural resources | Will not restrict people's traditional access to natural resources | Will facilitate people's traditional access to natural resources |
| 1  | 2   | 3  | 4  |

| <b>24. Indigenous resource management</b> |                                 |                               |  |
|---|---------------------------------|-------------------------------|--|
| Will lead to loss of traditional natural  | Not sure if it will promote and | Will not promote and preserve | Will lead to loss of traditional natural |

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|  |   |  |  |
|--|---|--|--|
| resource management knowledge and institutions | preserve traditional natural resource management knowledge and institutions | traditional natural resource management knowledge and institutions | resource management knowledge and institutions |
| 1  | 2   | 3  | 4  |

|  |   |  |  |
|--|---|--|--|
| <b>25. Natural disaster</b>  |   |  |  |
| Will increase risks of natural disasters like flood and landslides | Not sure if it will increase risks of natural disasters like flood and landslides | Will not increase risks of natural disasters like flood and landslides | Will decrease risks of natural disasters like flood and landslides |
| 1  | 2   | 3  | 4  |

|  |   |  |   |
|--|---|--|---|
| <b>26. Household utensils</b>                          |   |  |   |
| Will discourage use of locally made household utensils | Not sure if it will discourage the use of locally-made household utensils | Will not discourage the use of locally-made household utensils | Will encourage the use of locally-made household utensils |
| 1  | 2   | 3  | 4   |

|   |  |  |  |
|---|--|--|--|
| <b>27. Fuel wood consumption</b>              |  |  |  |
| Will increase consumption of wood for cooking | Not sure if it will increase consumption of wood for cooking | Will not increase consumption of fuel wood | Will promote electricity and LPG for cooking |
| 1   | 2  | 3  | 4  |

|   |  |   |   |
|---|--|---|---|
| <b>28. Bukhari wood consumption</b>       |  |   |   |
| Will increase consumption of Bukhari wood | Not sure if it will increase consumption of Bukhari wood | Will not increase consumption of Bukhari wood | Will encourage electrical appliances for heating houses |
| 1   | 2  | 3   | 4   |

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|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

| <b>29. Waste disposal</b>  |   |  |   |
|--|---|--|---|
| Will discourage disposal of wastes (bio-degradable and non-biodegradable wastes) | Not sure if it will discourage disposal of wastes (bio-degradable and non-biodegradable wastes) | Will not discourage disposal of wastes (bio-degradable and non-biodegradable wastes) | Will create a culture of disposing wastes |
| 1  | 2   | 3  | 4   |

| <b>30. Waste1: waste</b>  |  |   |  |
|---|--|---|--|
| Will encourage a lifestyle and consumption pattern that increase waste production | Not sure if it will encourage a lifestyle and consumption pattern that increase waste production | Will not encourage a lifestyle and consumption pattern that increase waste production | Will discourage a lifestyle and consumption pattern that increase waste production |
| 1   | 2  | 3   | 4  |

| <b>31. Waste2: plastic</b>                |  |   |   |
|---|--|---|---|
| Will increase production of plastic waste | Not sure if it will increase production of plastic waste | Will not increase production of plastic waste | Will decrease production of plastic waste |
| 1   | 2  | 3   | 4   |

| <b>32. Waste3: paper</b>                |  |   |   |
|---|--|---|---|
| Will increase production of paper waste | Not sure if it will increase production of paper waste | Will not increase production of paper waste | Will discourage of consumption and wastage of paper |
| 1                                       | 2  | 3   | 4   |

| <b>33. Waste4: glass</b>                |  |   |                                      |
|---|--|---|--------------------------------------|
| Will increase production of glass waste | Not sure if it will increase production of glass waste | Will not increase production of glass waste | Will discourage consumption of glass |

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|   |   |   |   |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

### 34. Waste5: metal

|   |  |   |   |
|---|--|---|---|
| Will increase production of metal waste | Not sure if it will increase production of metal waste | Will not increase production of metal waste | Will decrease production of metal waste |
| 1                                       | 2  | 3   | 4                                       |

### 35. Waste6: vegetables

|   |  |   |   |
|---|--|---|---|
| Will increase production of vegetable waste | Not sure if it will increase production of vegetable waste | Will not increase production of vegetable waste | Will decrease production of vegetable waste |
| 1   | 2  | 3   | 4   |

### 36. Scrap industry

|                                |  |                                    |                                       |
|--------------------------------|--|------------------------------------|---------------------------------------|
| Will discourage scrap industry | Not sure if it will discourage scrap-dealer industry | Will not discourage scrap industry | Will increase number of scrap dealers |
| 1                              | 2  | 3                                  | 4                                     |

### 37. Recycling industry

|                                    |   |  |                                   |
|------------------------------------|---|--|-----------------------------------|
| Will discourage recycling industry | Not sure if it will discourage recycling industry | Will not discourage recycling industry | Will encourage recycling industry |
| 1                                  | 2   | 3                                      | 4                                 |

### 38. Automobile use

|                                  |   |                                      |                                  |
|----------------------------------|---|--------------------------------------|----------------------------------|
| Will increase use of automobiles | Not sure if it will increase use of automobiles | Will not increase use of automobiles | Will decrease use of automobiles |
| 1                                | 2   | 3                                    | 4                                |

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| <b>39. Alternative transport</b>          |  |   |  |
|---|--|---|--|
| Will discourage walking to work and shops | Not sure if it will discourage walking to work and shops | Will not discourage walking to work and shops | Will promote walking to work and shops |
| 1   | 2  | 3   | 4                                      |