**SUPPLEMENTARY ONLINE MATERIAL**

**Household Questionnaire**

**Economic Value of Qurumber National Park (QNP) in Ghizer District, Gilgit-Baltistan**

**Dear Respondents**

This research is being conducted to estimate the total economic value of Qurumber National Park for the purpose of giving policy input for the better management of the park. Your input will be used for research purposes only and your participation in the survey is voluntary. You can leave any question blank if you feel you don’t want to give your response.

Thank you for your cooperation

**Village \_\_\_\_\_\_\_\_\_\_\_\_\_ Name of HH head \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name of interviewer\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Q1. Gender:**

* Male
* Female

**Q2. Educational Qualification**

* Undergraduate
* Graduate
* Postgraduate
* PhD
* Other

**Q3. Occupation\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Q4. Age \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Q5. Are you a member of any conservation organisation/committee?**

* Yes
* No

**Q6.** Household monthly income (in PKR) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q7.** Average monthly electricity bill (PKR) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q8**. Monthly expenditure on education and health \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q9.** Number of visits to Qurumbar National Park during the last 12 months \_\_\_\_\_\_\_\_\_\_

**Q10**. Distance from your home to Qurumber National Park \_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q11. Household (HH) size** | | | | | | |
| **HH members** | | **Male** | **Female** |
| Number of household members | |  |  |
| Educated HH members | |  |  |
| Uneducated HH members | |  |  |
| **Q12. Sources of HH income** | | | | |
| **Major sources of HH income** | | | | **1=Yes, 0=NO** |
| Agricultural products | | | |  |
| Salary from job | | | |  |
| Daily wage | | | |  |
| Sale of fruits | | | |  |
| Remittances (income sent by migrant HH members) | | | |  |
| Business | | | |  |
| Livestock | | | |  |
| Sea buckthorn | | | |  |
| Other please specify | | | |  |

|  |  |  |
| --- | --- | --- |
| **Q13. Annual agricultural production and its value** | | |
| **Crops** | **Annual production** | **Per unit market price as of 2021** |
| Wheat |  |  |
| Maize |  |  |
| Grass/Fodder |  |  |
| Vegetables |  |  |
| Potato |  |  |
| Barley |  |  |
| **Q14. Annual household fruits production** | | |
| **Types of fruits** | **Annual production** | **Per unit market price as of 2021** |
| اخروٹ Walnut |  |  |
| Apple |  |  |
| ناشپاتی Pear |  |  |
| آڑوPeach |  |  |
| خوبانی Apricot |  |  |
| Grapes |  |  |
| Cherry |  |  |
|  |  |  |
| **Q15. Annual household consumption and sale of wood during the last year** | | |
| **Type of wood** | **Quantity** | **Per unit market price as of 2021** |
| Annual quantity of fuelwood consumed and sold |  |  |
| Medicinal plants collected and sold |  |  |

|  |  |  |
| --- | --- | --- |
| **Q16. Household livestock** | | |
| **Livestock** | **Quantity** | **Total value as of 2021** |
| Yak |  |  |
| Cow |  |  |
| Goat |  |  |
| Sheep |  |  |
| Others |  |  |

|  |  |
| --- | --- |
| **Q17. Households ownership of land in Qurumber valley** | |
| **Land category** | **Quantity in Kanal** |
| Agricultural/horticultural land |  |
| Built up area |  |
| Barren land |  |
| Community forest |  |

**Q19. Please highlight the services and products of QNP in terms of social, economic and ecological importance/significance**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Category of ecosystem services** | **Ecosystem services** | **Perceived importance of ecosystem service** | | | | | |
| **Very important** | **Important** | **Moderately important** | **Less important** | **Not important** | **No answer** | |
| **Provisioning ecosystem services** | Food |  |  |  |  |  |  | |
| Energy resources |  |  |  |  |  |  | |
| Medicinal plants |  |  |  |  |  |  | |
| Raw materials |  |  |  |  |  |  | |
| Genetic resources |  |  |  |  |  |  | |
| Water |  |  |  |  |  |  | |
| Ornamental resources |  |  |  |  |  |  | |
| Wildlife |  |  |  |  |  |  | |
| **Supporting ecosystem Services** | Carbon sequestration |  |  |  |  |  |  | |
| Flood prevention |  |  |  |  |  |  | |
| Air quality |  |  |  |  |  |  | |
| Climate regulation |  |  |  |  |  |  | |
| Waste regulation |  |  |  |  |  |  | |
| **Cultural ecosystem services** | Knowledge generation |  |  |  |  |  |  | |
| Educational value |  |  |  |  |  |  | |
| Cultural and historical value |  |  |  |  |  |  | |
| Spiritual and religious value |  |  |  |  |  |  | |
| Aesthetic value |  |  |  |  |  |  | | |
| Recreation and tourism |  |  |  |  |  |  | | |
| Mental/physical health benefits |  |  |  |  |  |  | | |
| **Regulating ecosystem services** | Carbon sequestration |  |  |  |  |  |  | | |
| Flood prevention |  |  |  |  |  |  | | |
| Regulation of water flow |  |  |  |  |  |  | | |
| Air quality |  |  |  |  |  |  | | |
| Climate regulation |  |  |  |  |  |  | | |
| Waste regulation |  |  |  |  |  |  | | |

**Q20. What are the main drivers of change in the QNP that impact its ecosystems and associated ecosystem services?**

Please rank your response in 1-5 (5 being the most major factor and 1 being the least factor)

|  |  |
| --- | --- |
| **Your choices** | **Your ranking** |
| Climate change |  |
| Pollution |  |
| Invasive species |  |
| Habitat exploitation |  |
| Land use change |  |
| Others |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description** | **Increase** | **Same** | **Decrease** | **No Answer** |
| **Q21**. What are the current conditions of overall ecosystem services in the QNP |  |  |  |  |
| **Q22.** What is the trend in the supply of provisioning services? |  |  |  |  |
| **Q23** What is the trend in the demand for provisioning services? |  |  |  |  |

**Q24.** With the increase in population and development activities, the important ecosystem services such as water, biodiversity, forest, etc. are under tremendous pressure. The establishment of Qurumber National Park aims to conserve these vitally important mountain ecosystem services but at the same time, owing to the lack of sufficient funds, the conservation activities may not proceed successfully. Therefore, if a conservation fee (in cash or in kind) is introduced per household, would you like to pay?

* Yes
* No

|  |  |  |  |
| --- | --- | --- | --- |
| **Q 25. Community perception about park development** | | | |
| **Community perception** | **Yes** | **No** |
| I support the establishment of Qurumber National Park (QNP) |  |  |
| QNP can improve the local natural ecological environment |  |  |
| QNP can promote local economic development as a whole |  |  |
| QNP can promote the development of local tourism |  |  |
| QNP will increase employment opportunities for the local residents |  |  |
| QNP will benefit the poor |  |  |
| QNP will benefit women |  |  |
| QNP will have an impact on the culture of the region. |  |  |
| Input and concerns of local residents should be incorporated in the park management plan |  |  |