

## Peoples' Biodiversity Register (PBR): General Details

**Name of the Panchayat Samity:** Horna

**Taluk:** Mughalmaidan

**District:** Kishtwar

**State/UT:-** Jammu and Kashmir

**Geographical Area of the Panchayat Samity:** 3.5 sq km

**Population under the Panchayat Samity: Total:** 2260

**Male :-** 1300

**Female:** 960

**Habitat and Topography:** Hilly Terrian

**Climate (Rainfall, Temperature and other weather patterns)** Seasonal Moderate

**Land Use (Nine-fold classification available with village records)**

**Date, Month and Year of PBR preparation:-**23/08/2020

**Management Regime: Reserve Forests (RF) / Joint Forest Management (JFM) / Protected Areas (PA) / Community Owned and Managed Forests (COM)**

## Annexure 1

### **Details of Biodiversity Management Committee (BMC) of the panchayat (One elected Chairperson and six persons nominated by the local body; not less than one third to be women and not less than 18% belonging to SC/ST)**

**1) Name of the Chairperson:** Atta Mohd Dar (Mobile No. : 9622092810)

**Age:** 64

**Gender:** Male

**Address:** Horna

**Area of specialization:** Retired VLW

**2) Name:** Anju Bala

**Age:** 26 years

**Gender:** Female

**Address:** Horna

**Area of specialization:** House wife

**3) Name:** Guddi Devi

**Age:** 30 years

**Gender:** Female

**Address:** Horna

**Area of specialization:** Housewife

**4) Name:** Ranjeet Kumar

**Age:** 26 years

**Gender:** Male

**Address:** Horna

**Area of specialization:** Shopkeeper

**5) Name:** Irshad Ahmed

**Age:** 24 years

**Gender:** Male

**Address:** Horna

**Area of specialization:** Farmer

**6) Name:** Pardeep kumar

**Age:** 26 Years

**Gender:** Male

**Address:** Horna

**Area of specialization:** Farmer Agriculture

**7) Name:** Ramesh kumar

**Age:** 40 years

**Gender:** Male

**Address:** Horna

**Area of specialization:** Farmer Agriculture

## Annexure 2

### List of *Vaids, hakims* and traditional health care (human and livestock) practitioners residing and or using biological resources occurring within the jurisdiction of the villag

1) Name: Ab Rashid

Age: 60

Gender: Male

Address: Horna

Area of Specialization: Hakeem (Bones Joint animals )

Location from which the person accesses biological material: Forest

Perception of the practitioner on the resource status:

Medicinal use:

2) Name: Shamma Begum

Age: 60

Gender: Female

Address: Horna

Area of Specialization: Hakeem (Forest Herbs use)

Location from which the person accesses biological material: Forest

Perception of the practitioner on the resource status:

Medicinal use:

3) Name: Bhagi devi

Age: 65

Gender: Female

Address: Khandool

Area of Specialization: Vaid (Forest herbs)

The location from which the person accesses biological material: Local

Perception of the practitioner on the resource status:

Medicinal use: Zakhmehayat

### Annexure 3

#### List of individuals perceived by the villagers to possess Traditional Knowledge (TK) related to biodiversity in agriculture, fisheries, and forestry

1) **Name:** Bansi Lal

**Age:** 65

**Gender:** Male

**Address:** Neera

**Area of specialization:** Shepherd

2) **Name:** Abdul Rehman

**Age:** 48

**Gender:** Male

**Address:** Horna

**Area of specialization:** Rice Cultivator

**Annexure 4**

**Details of schools, colleges, departments, universities, government institutions, non-governmental organization and individuals involved in the preparation of the PBR**

**1) Contact Person :-**

**Name and Address:**

**2) Contact Person :-**

**Name and Address:**

**3) Contact Person :-**

**Name and Address:**

**4) Contact Person :-**

**Name and Address:**

**You may add names of more institutions/ NGO/ Individuals etc., if necessary**

**Annexure 5****Details of access to biological resources and traditional knowledge granted, details of the collection fee imposed and details of the benefits derived and the mode of their sharing**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>S No</b>	<b>Name and address of the Person /institution/ company/ others</b>	<b>Local and Scientific Name of the biological material Accessed and quantity</b>	<b>Date and resolution of the BMC and endorsement by the panchayat</b>	<b>Details of collection fee imposed</b>	<b>Anticipated mode of sharing benefits or quantum of benefits shared</b>
NA	NA	NA	NA	NA	NA

*End of Part I*

**Part II**

**PBR – Formats**

**AGROBIODIVERSITY**

**Format 1: Crop Plants**

1	2	3	4	5	6	7		8	9	10	11	12	13	14
Crop	Scientific Name	Local Name	Variety	Landscape / Habitat	Approx. area shown	Local Status		Special features	Cropping season	Uses	Associated TK	Other details	Source of Seeds/Plants	Community/ Knowledge Holder
						Past	Present							
Rice	<i>Oryza sativa</i>	Dhan / tamul	Veliyan	Lowland valleys	51.7	Plenty	Rare	Tall variety High yield Resistant to drought, pests & diseases	Aug-Sept	Food Fodder Fuel	Provides more energy	Not-known	Local preserved	Locals
Wheat	<i>Triticum</i>	Gundam	Local	Lowland valleys	56.7	Plenty	Plenty	-do-	May-June	Food Fodder	Provides more energy	Not-known	Local preserved / Agriculture Deptt.	Locals
Barley	<i>Hordeum vulgare</i>	Jow	Local	Lowland valleys	58.4	Plenty	Rare	-do-	May-June	Food Fodder	Provides more energy	Not-known	Local preserved	Locals
Maize	<i>Zea mays</i>	Maki	Local	Lowland valleys	13.25	Plenty	Plenty	-do-	Sept-Oct	Food Fodder	Provides more energy	Not-known	Local preserved	Locals
Oat	<i>Avena sativa</i>	Lawn	Local	Lowland valleys	18.35	Rare	Plenty	-do-	May-June	Fodder	Provides more energy	Not-known	Local preserved / Agriculture Deptt.	Locals



Beans	<i>Phaseolus vulgaris</i>	Rajmash	Local	Lowland valleys	28.25	Plenty	Plenty	Resistant to drought, pests & diseases	Sept-Oct	Food Fodder	Provides more energy	Not-known	Local preserved	Locals
Moong	<i>Vigna radiata</i>	Mong mah	Local	Lowland valleys		Plenty			Sept-Oct	Food Fodder	Provides more energy		Local preserved	Locals

### Format 2: Fruit Plants

1	2	3	4	5	6		7	8	9	10	11	12
Plant	Scientific Name	Local Name	Variety	Landscape / Habitat	Local Status		Source of Seeds/Plants	Season of Fruiting (Repining)	Associated TK	Uses	Other details market /own use	Community / Knowledge holder
					Past	Present						
Apple	<i>Malus domestica</i>	Saib	Red delicious, Golden delicious, Ambri	Lowland valley / home gardens	Plenty	Plenty	Local preserved / Horticulture Deptt./ Pvt. Nursery	Aug-Sept	Reducing cholesterol, lowering blood sugar level	Nutritious value	Market / own use	Locals
Apricot	<i>Prunus armeniaca</i>	Khubani	Safeda, Qadri	-do-	Plenty	Rare	Local preserved / grafting	June-July	Cures heart diseases	Nutritious value	Market / own use	Locals
Walnut	<i>Juglans regia</i>	Akhroot	Local	Lowland valley / Agricultural land	Plenty	Plenty	Local preserved / Horticulture Deptt.	Aug-Sept	Reduces prostate cancer and diabetes	Nutritious value	Market / own use	Locals
Pear	<i>Pyrus</i>	Tang	Babugosha, Moti Daddi, Half red Naak, Misri Tang	-do-	Plenty	Plenty	Local preserved / grafting	Aug-Sept	Uses for mild digestion problems, diarrhea, severe cholera	Nutritious value	Market / own use	Locals
Peach	<i>Prunus armwniaca</i>	Aadu	Local, Shan-e-Punjab, Amba	-do-	Plenty	Plenty	Local preserved	Aug-Sept	Provides more energy	Nutritious value	Market / own use	Locals
Pomegranate	<i>Punica granatum</i>	Anardana	Local wild / Ganesh, Kandhari	-do-	Plenty	Plenty	Local preserved	Sept-Oct	Provides more energy	Nutritious value	Market / own use	Locals
Grapes	<i>Vitis vinifera</i>	Angoor	Local / Hybrid	-do-	Plenty	Plenty	Local preserved	Aug-Sept	Provides more energy	Nutritious value	Market / own use	Locals

Cucumber	<i>Curmis sativus</i>	Khira	Local / Hybrid	Agriculture land	Plenty	Plenty	Local preserved / Seed shops	Aug-Sept	Provides more energy	Nutritious value	Market / own use	Locals
Plum	<i>Prunus domestica</i>	Alu Bukhara	Santa Rosa / Local	Agriculture land	Plenty	Plenty	Local preserved / Seed shops	Aug-Sept	Provides more energy	Nutritious value	Market / own use	Locals
Quince	<i>Cydonia oblonga</i>	Beehi	Local	Agriculture land	Plenty	Plenty	Local preserved / Seed shops	Aug-Sept	Provides more energy	Nutritious value	Market / own use	Locals

**Format 3: Fodder Crops / Species**

1	2	3	4	5		6	7	8	9	10
Plant	Scientific Name	Local Name	Landscape / Habitat	Local Status		Source of Plants / Seeds	Associated TK	Part Used	Other details	Community / Knowledge holder
				Past	Present					
Oak	<i>Quercus ilex</i>	Heru	Lowland / Forest	Plenty	Plenty	Natural propagation	Green leaves as fodder which provides more energy to livestock	Green Leaves	Also used as fuel wood & soil binder	Locals
Robenia	<i>Roninia pseudoacacia</i>	Kikar	Lowland / Forest	Plenty	Plenty	Natural propagation / Artificial regeneration	-do-	Green Leaves	Also a good soil binder plant	Locals
Ban oak	<i>Aescules indica</i>	Gug	Lowland / Forest	Plenty	Plenty	Natural propagation / Artificial regeneration	-do-	Green Leaves	Also used as fuel wood	Locals
Ailanthus	<i>Ailanthus altissima</i>	Fak kul	Lowland / Forest	Plenty	Plenty	Natural propagation	-do-	Green Leaves	Also used as fuel wood	Locals
Willow	<i>Salix alba</i>	Ier kul	Lowland / Forest	Plenty	Plenty	Natural propagation / Artificial regeneration	-do-	Green Leaves	Also used as fuel wood	Locals
Fig	<i>Ficus palmate</i>	Figura	Lowland / Forest	Plenty	Plenty	Natural propagation	Provides fodder and more energy to livestock	Green / dry Leaves	Fruit edible & also used as fuel wood	Locals
Rice	<i>Oryza sativa</i>	Dhan / tamul	Lowland valleys	Plenty	Rare	Local preserved	Provides fodder and more energy to livestock	Whole plant	Also provides food grains	Locals
Wheat	<i>Triticum</i>	Gundam	Lowland valleys	Plenty	Plenty	Local preserved / Agriculture Deptt.	Provides fodder and more energy to livestock	Whole plant	Also provides food grains	Locals
Barley	<i>Hordeum vulgare</i>	Jow	Lowland valleys	Plenty	Rare	Local preserved	Green & dry plant used as fodder for the livestock	Whole plant	Also provides food grains	Locals



**Format 4: Weeds**

1	2	3	4	5	6	7		8	9	10	11	12
Plant	Scientific Name	Local Name	Affected crop	Impact	Landscape / Habitat	Local Status		Uses if any	Management options	Associated TK	Other details like exotic	Community / Knowledge holder
						Past	Present					
Grass	<i>Parthenium hysterophorus</i>	Congress grass	Every crop even to human	Less growth of affected crop and causes severe itching in humans	Forest / Lowland	Plenty	Plenty	-	Pesticide spraying / plucking out	Causes severe skin problems	Not reported	Locals
Grass	<i>Cynodon dactylon</i>	Drub grass	Every crop	Less growth of affected crop	Forest / Lowland	Plenty	Plenty	Fodder grass	Pesticide spraying / plucking out	Religious purpose	Not reported	Locals
Grass	<i>Murshilea quadrifoliata</i>	Grass	Rice	-do-	Lowland	Plenty	Plenty	-	Pesticide spraying / plucking out	Weed	Not reported	Locals
Grass	<i>Echinochota crus galli</i>	Grass	Rice	-do-	Lowland	Plenty	Plenty	-	Pesticide spraying / plucking out	Weed	Not reported	Locals
Grass	<i>Anagallis arvensis</i>	Grass	Maize	-do-	Lowland	Plenty	Plenty	-	Pesticide spraying / plucking out	Weed	Not reported	Locals
Grass	<i>Lolium temulentum</i>	Rye grass	Wheat	-do-	Lowland	Plenty	Plenty	-	Manual plucking out	Weed adversely affect crop quality	Not reported	Locals
Plant	<i>Malva sylvestris</i>	Sotsal	Vegetables	-do-	Lowland	Plenty	Plenty	-	Manual plucking out	Medicinal use	Not reported	Locals

Plant	<i>Cannabis sativa</i>	Bhang	Every crop	-do-	Forest /Lowland	Plenty	Plenty	-	Manual plucking out	Religious purpose	Making Charas (intoxicating drug)	Locals
Plant	<i>Cardius nutans</i>	Kond posh	Every crop	-do-	Forest /Lowland	Plenty	Plenty	-	Manual plucking out	Weed	Not reported	Locals
Plant	<i>Utrica dioica</i>	Soi	Every crop	-do-	Forest /Lowland	Plenty	Plenty	-	Pesticide spraying / plucking out	Weed	Not reported	Locals
Plant	<i>Mateicaria</i>	Chamomilla	Every crop	-do-	Forest /Lowland	Plenty	Plenty	-	Pesticide spraying / plucking out	Weed	Not reported	Locals

**Format 5: Pests of Crops**

1	2	3	4	5	6	7	8	9	10
Host	Insect / Animal	Scientific name	Local name	Habitat	Time / season of attack	Management mechanism	Associated TK	Other details	Community knowledge holder
Deodar tree	Insect	<i>Ectropis deodarae</i>	Deodar defoliator	On host	July to Oct	Insecticide application	Not reported	Leaf defoliator	-
Kail tree	Insect	<i>Lophodermium macchi</i>	Fungal pathogen	On host and fallen needles	July to Oct	Insecticide application	Not reported	Leaf defoliator	-
Fir tree	Insect	<i>Fusarium pallidiriseum</i>	Pathogen	On host and fallen needles	July to Oct	Insecticide application	Not reported	Leaf defoliator	-
Rice	Insect	<i>Order isopteran</i>	Not known	Farm fields	-	Insecticide application	Root feeder	Not known	-
Rice	Insect	<i>Noctuidae pyralidae</i>	Not known	Farm fields	-	Insecticide application	Stem borer	Not known	-
Rice	Insect	<i>Order hemiptera</i>	Not known	Farm fields	-	Insecticide application	Leaf hoppers	Not known	-
Maize	Insect	<i>Helicoverpa</i>	Corn earworm, true wire worm	Farm fields	-	Insecticide application	Leaf damager	Not known	-
Maize	Animal	<i>Rattus norvegicus</i>	Rat	Farm fields	After flowering	Chemical pesticide	Roots and fruit damager	Not known	-
Wheat	Insect	<i>Odontoter misobesus</i>	Termites	Farm fields	Ripening period	Insecticide application	Damages the food grain	Not known	-





**Format 7: Peoplescape**

1	2	3	4	5	6	7	8	9	10	11
<b>Community &amp; Population</b>	<b>Families &amp; Major occupation</b>	<b>Sub- occupation</b>	<b>Depending Landscape</b>	<b>Major resources accessed and seasons of access</b>	<b>Landscape management practices</b>	<b>Resource management practices</b>	<b>Cast/ tribe</b>	<b>Social condition</b>	<b>Nature of inhabitants</b>	<b>No. of HHs</b>
General and Scheduled cast	Agriculture	Collection of NTFP, Cattle rearing, Artisans & Govt. Servants	Forest (Hilly terrain) / Agriculture landscape	Agriculture for the purpose of food grains and fodder	Terrace farming	Traditional resource management practices	General / SC	Socially privileged	Most of them do own jobs, economically less privileged	

**Format 8: Landscape**

Format 8: Landscape													
1			2	3	4	5	6	7	8	9	10	11	12
Major Landscapes			Sub - Landscapes	Feature s and approx. Area	Ownership	General flora	General fauna	User groups	Management practices	General uses	Associated TK	Other details	Community accessed
Agricultural land	Pond	Fallow land											
Cultivated land	NA	NA	Cultivated land		Agricultural lands are privately owned	Domestic plants and some wild plants	Insect	Panchayat villages	Traditional practices	Agriculture	Provides food and fodder	Unknown	Low income communities
Non-cultivated land	NA	NA	Non-cultivated land		Govt./ Private land	-do-	Insect	-do-	-do-	Fodder purpose	Provides fodder to livestock	-do-	-do-



**Format 10: Soil type**

1	2	3	4	5	6	7	8
Soil Type	Color & Texture	Features	Soil management	Plants / crop suitable	Flora and fauna	Associated TK	Other information
Clay soil and sandy loamy soil	Grayish, brown, small grained mixture	Does not retain water frequent irrigation	Recharged with leaf manure, animal waste compost	Conifer plants, broad leaved plants, Fruit plants, NTFP species, Wheat, barley, maize, rice and some seasonal vegetables.	Domesticated /wild plants and animals	Provides good quality of timber, fuelwood, NTFP, food and fodder	-

## Format 11: Fruit Trees

### DOMESTICATED BIODIVERSITY

1	2	3	4	6	7		8	9	10	11	12	13
Plant Type	Local Name	Scientific Name	Variety	Landscape/ Habitat	Local Status		Source of plant/seeds	Season of Fruiting (Repining)	Uses (usage)	Associated TK	Other details market/own use	Community/ Know. holder
					Past	Present						
Apple	Saib	<i>Malus domestica</i>	Red delicious, Golden delicious, Ambri	Lowland valley / home gardens	Rare	Plenty	Local preserved / Horticulture Deptt.	Aug-Sept	Nutritious value	Reducing cholesterol, lowering blood sugar level	Market / own use	Locals
Apricot	Khubani	<i>Prunus armeniaca</i>	Safeda, Qadri	-do-	Plenty	Rare	Local preserved / grafting	June-July	Nutritious value	Cures heart diseases	Market / own use	Locals
Walnut	Akhroot	<i>Juglans regia</i>	Local	Lowland valley / Agricultural land	Plenty	Plenty	Local preserved / Horticulture Deptt.	Aug-Sept	Nutritious value	Reduces prostrate cancer and diabetes	Market / own use	Locals
Pear	Tang	<i>Pyrus</i>	Babugosha, Moti Daddi, Half red Naak, Misri Tang	-do-	Plenty	Plenty	Local preserved / grafting	Aug-Sept	Nutritious value	Uses for mild digestion problems, diarrhea, severe cholera	Market / own use	Locals
Peach	Aaadu	<i>Prunus armwniaca</i>	Local, Shan-e- Punjab, Amba	-do-	Plenty	Plenty	Local preserved	Aug-Sept	Nutritious value	Provides more energy	Market / own use	Locals
Pomegranate	Anardana	<i>Punica granatum</i>	Local	-do-	Plenty	Plenty	Local preserved	Sept-Oct	Nutritious value	Provides more energy	Market / own use	Locals
Grapes	Angoor	<i>Vitis vinifera</i>	Local / Hybrid	-do-	Plenty	Plenty	Local preserved	Aug-Sept	Nutritious value	Provides more energy	Market / own use	Locals

Cucumber	Khira	<i>Curmis sativus</i>	Local / Hybrid	-do-	Plenty	Plenty	Local preserved / Seed shops	Aug-Sept	Nutritious value	Provides more energy	Market / own use	Locals
Plum	Ore	<i>Prunus domestica</i>	Local / Hybrid	-do-	Plenty	Plenty	Local preserved / Seed shops	Aug-Sept	Nutritious value	Provides more energy	Market / own use	Locals
Quince	Beehi	<i>Cydonia oblonga</i>	Local	-do-	Plenty	Plenty	Local preserved / Seed shops	Aug-Sept	Nutritious value	Provides more energy	Market / own use	Locals
	Groundnut	<i>Arachis hypogaea</i>	Local	-do-	Plenty	Plenty	_	June-July	Nutritious value	Provides more energy	Own Use	Locals

**Format 12: Medicinal Plants (Herbs, Shrubs, Trees etc.)**

1	2	3	4	5	6	7		8	9	10	11	12
Plant Type	Local Name	Scientific Name	Variety	Landscape/ Habitat	Source of plant/seeds	Local status		Uses (usage)	Part used	Associated TK	Other details market/own use	Community/ Know. Holders
						Past	Present					
Herb	Dhoop	<i>Jurinea macrocephala</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Dhoop making	Roots	Dhoop and agarbati for religious purpose	Own use	Locals and Bakerwals
Herb	Patrees	<i>Aconitum heterophyllum</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Tubers are used medicinally as tonic	Tubers	Used in various Ayurvedic formulations	Own use	Locals
Herb	Balladona	<i>Atropa accuminata</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Roots and leaves are anti-asthmatic	Leaves and roots	Used in various Ayurvedic formulations	Own use	Locals and Bakerwals
Shrub	Khumlai	<i>Berberis lycium</i>	Wild (NTFP)	Lowlands / forests	Naturally grown	Plenty	Plenty	Rasaunt as cooling agent	Roots	Used in various Ayurvedic formulations	Own use	Locals and Bakerwals
Herb	Krees	<i>Dioscorea deltoidea</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Used in gastric complaints	Roots	Used in various Ayurvedic formulations	Own use	Locals and Bakerwals
Herb	Kaur	<i>Picorhiza kurrooa</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Tonic and rheumatism	Roots	Ayurvedic formulations	Own use	Locals and Bakerwals



Herb	Bankakri	<i>Podophyllum hexandrum</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Cancer treatment	Roots	Ayurvedic formulations	Own use	Locals and Bakerwals
Herb	Panchalan	<i>Rheum moorcroftianum</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Wound healing	Roots	Ayurvedic formulations	Own use	Locals and Bakerwals
Herb	Kuth	<i>Saussurea costus</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Ayurvedic formulations	Roots	Ayurvedic formulations	Own use	Locals and Bakerwals
Herb	Nagchattri	<i>Trillium govanianum</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Roots yield diosgenin on hydrolysis	Roots	Used in various Ayurvedic formulations	Own use	Locals and Bakerwals
Herb	Zakhme hayat	<i>Bergenia ciliate</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Massage to cure body	Roots	Kidney stone and wound healing	Own use	Locals and Bakerwals
Plant	Postul	<i>Taxus baccata</i>	Wild (NTFP)	Alpine forest	Naturally grown	Plenty	Rare	Cancer treatment	Bark and leaves	Used in tea by locals	Own use	Locals and Bakerwals
Herb	Seski	<i>Artemisia martina</i>	Wild (NTFP)	Lowland / forests	Naturally grown	Plenty	Plenty	Used in stomach pain	Leaves	Ayurvedic formulations	Own use	Locals and Bakerwals
	Gucchi	<i>Morchella esculenta</i>				Plenty		Used in Stomach pain and in medicine & Vegetable, Financial purpose		Ayurvedic formulations	Own use	Locals and Bakerwals

**Format 13: Ornamental Plants/ Trees/Climbers etc.**

1	2	3	4	5	6	7	8	9	10
Plant Type	Local Name	Scientific Name	Variety	Source of plant/seeds	Commercial/ non-commercial	Uses	Associated TK	Other details	Community/ Know. holder
Broad leaved	Chinar	<i>Planitus orientalis</i>	Local	Forest / private nurseries	Non-commercial	Ornamental	Provides cool shade and home for many birds	Dried leaves are used as Kangri fuel	Locals
Evergreen tree	Sarv Kull	<i>Cupressus cashmeriana</i>	Local	Private nurseries	Non-commercial	Ornamental	Provides scenery and beauty of area	Unknown	Locals
Broad leaved	Ier kull	<i>Salix alba</i>	Willow local	From cutting of willow tree	Commercial	Ornamental	Provides beauty of home garden etc	Also used in making cricket bats	Locals
Broad leaved	Safeda	<i>Populous</i>	Local	From cutting of populous tree	Commercial	Ornamental	Provides beauty of land	Used in fruit packing and plywood industries	Locals
Shrub	Gainda	<i>Targetes erecta</i>	Local	Preserved seed	Non-commercial	Ornamental	Provides beauty of home garden	Also used for religious purpose	Locals
Shrub	Gulab	<i>Rosa indica</i>	Local	From cuttings	Non-commercial	Ornamental	Provides beauty of home garden	Also used for religious purpose	Locals
Shrub	Dhaliya	<i>Dahlia pinnata</i>	Local	Rhizomes of flower plant	Non-commercial	Ornamental	Provides beauty of home garden	Also used for religious purpose	Locals

**Format 14: Timber Plants / Trees**

1	2	3	4	5		6	7	8	9	10
Plant Type	Local Name	Scientific Name	Habitat	Local status		Wild/ home-garden	Other uses (multi)	Associated TK	Other details	Community/ Know. holder
				Past	Present					
Conifer	Dair	<i>Cedrus deodara</i>	Forests	Plenty	Plenty	Wild	Cedrus oil is used as a treatment of piles, kidney stone and diabetes etc.	Provides durable timber, fuelwood and for religious purpose	Evergreen tree having a conic crown with level drooping branches like X-mass tree	Locals
Conifer	Kail	<i>Pinus wallichiana</i>	Forests	Plenty	Plenty	Wild	Timber and furniture	Provides durable timber & fuelwood	Evergreen tree native to the Himalaya, Karakoram and Hindukush mountain	Locals
Conifer	Fir	<i>Abies pindrow</i>	Forests	Plenty	Plenty	Wild	Timber and furniture	It helps in treating fever, cough and cold. Provides timber and furniture for houses.	Evergreen tree growing to 40-60 m tall with conical crown and level branches	Locals
Broad leaved	Akhroot	<i>Juglans regia</i>	Private land / Forest	Plenty	Plenty	Wild / home garden	Furniture / agricultural implements	Walnut used as nutritious fruit. Its bark and leaves as well as the husk of seeds are used in different medicines and dyes	Deciduous tree	locals

**Format 15: Domesticated Animals**

1	2	3	4	5	6	7		8	9	10	11	12
Animal Type	Local Name	Scientific Name	Breed (local/hybrid)	Features	Method of keeping	Local status		Uses	Associated TK	Commercial rearing	Other details including products and services	Community Know. Holders
						Past	Present					
Sheep	Bhead	<i>Orisaries</i>	Local	Small size rough coat	Flock rearing	Plenty	Rare	Mutton and wool	Yes	Yes	Mutton, wool, manure, bones and hides	Local/Nomads
Sheep	Bhead	<i>Orisaries</i>	Rambouillet cross breed	Large size low body weight	Flock rearing	Rare	Plenty	Mutton and wool	Yes	Yes	Mutton, wool, manure, bones and hides	Local/Nomads
Goat	Bakri	<i>Capra hircas</i>	Local	Small size low body weight	Flock rearing	Plenty	Rare	Mutton and wool	Yes	Yes	Mutton, wool, manure, bones and hides	Local/Nomads
Goat	Bakri	<i>Capra hircas</i>	Kaghani, bakasooli	Large size high body weight	Flock rearing	Rare	Plenty	Mutton and wool	Yes	Yes	Mutton, wool, manure, bones and hides	Local/Nomads
Cow	Gaay	<i>Bos taurus</i>	Local	Cow have hooves on there feet and can weight upto 400 pounds	Flock rearing	Rare	Plenty	Milk, Cow dung	Milk good for health	Yes	High milk production	Local/Nomads
Buffalo	Bhains	<i>Babulas</i>	Local	Dark slab colour less	Domesticate	Plenty	Rare	Milk, Dung	Milk good for health	Yes	High milk production	Local/Nomads
Ox	Bael	<i>Bos spp.</i>	Local	For plugging	Domesticate	Plenty	Rare	For plugging	Use for plugging	Yes	Use for plugging	Local/Nomads
Dog	Kutta	<i>Cains familiaris</i>	Local	Pet	Pet	Rare	Plenty	Guard, hunting dog	Nil	Nil	Nil	Local/Nomads
Cat	Billi	<i>Felis cats</i>	Local	Pet	Pet	Rare	Plenty	Pest control	Nil	Nil	Nil	Local/Nomads

### Format 16: Culture Fisheries

1	2	3	4	5	6	7		8	9	10	11	12
Fish Type	Local Name	Scientific Name	Variety	Features	Waterscape (pond / bheri / talao)	Local status		Uses	Associated TK	Commercial rearing	Other details	Community Know. Holders
						Past	Present					
Cold water	Rainbow trout	Salmo gairdneri	Introduced	Body comparatively stout and deep, two dorsal fins present, 1 <sup>st</sup> having soft rays and 2 <sup>nd</sup> one adipose, a red rainbow like band present on sides, lateral line present and innumerable black spots found on lateral line	Present in ponds	Nil	Plenty	Commercially important fish food	-	Yes	Mode of catching drag net /hand net	Fish farmer



## WILD BIODIVERSITY

### Format 18: Trees, Shrubs, Herbs, Tubers, Grasses, Climbers etc.

1	2	3	4	5	6		7	8	9	10	11
Plant Type	Local Name	Scientific Name	Habit	Habitat	Local status		Commercial / own use	Part collected	Associated TK	Other details	Community Knowledge Holder
					Past	Present					
Tree	Deodar	<i>Cedrus deodara</i>	Land	Forest	Plenty	Plenty	Its wood is used for the treatment of piles, kidney stones, insomnia, diabetes, urinary disorder etc	Wood	Cedrus oil is often used for its aromatic property	It's has a conic crown with level branches and dropping branch let	Locals
Tree	Kail	<i>Pinus wallichiana</i>	Land	Forest	Plenty	Plenty	Commercial and own use	Wood	Provide durable timber	Conifer plant	Locals
Tree	Fir	<i>Abies pindrow</i>	Land	Temperate forest	Plenty	Plenty	Commercial and own use	Wood	It helps in mitigating the level of anxiety	It help in treating fever, cough and cold	Locals
Tree	Oak	<i>Quercus ilex</i>	Land	Forest/ Private land	Plenty	Plenty	Own uses	Leaves & Wood	Fodder & Fuel wood	Evergreen B.L tree	Locals
Tree	Bren	<i>Alnus villosa</i>	Land	Forest	Plenty	Plenty	Own use	Wood	Fodder and fuel wood	For religious purpose	Locals
Tree	Champ	<i>Alnus nitida</i>	Land	Forest	Plenty	Plenty	Own use	Wood	Fuel wood	Found on riverside	Locals
Tree	Postul	<i>Taxus baccata</i>	Land	Forest	Plenty	Plenty	Own use	Bark	Use for treating common cold, cough and pain	Used in medicine that cures cancer.	Locals

Tree	Zum	<i>Prunus cornuta</i>	Land	Forest	Plenty	Plenty	Own use	Wood	Fuel wood	-	Locals
Tree	Willow	<i>Salix alba</i>	Land	Forest/ Pvt	Plenty	Plenty	Commercial /Own use	Leaves & Wood	Cricket Bat	Fodder	Locals
Herb	Dhoop	<i>Juninea macrocephala</i>	Land	Pasture	Plenty	Plenty	Own use	Root	Dhoop / Agarbati sticks	NTFP	Locals
Herb	Kour	<i>Picrorhiza kurroa</i>	Land	Mountain region	Plenty	Plenty	Own use	Root	Medicinal use	NTFP	Locals
Herb	Bankakri	<i>Podophyllum hexandrum</i>	Land	Mountain region	Plenty	Plenty	Own use	Root	Used for cancer treatment	NTFP	Locals
Herb	Kuth	<i>Saussurea lappa</i>	Land	Mountain region	Plenty	Plenty	Own use	Root	Medicinal use	NTFP	Locals
Herb	Nagchattri	<i>Trillium govanianum</i>	Land	Mountain region	Plenty	Plenty	Own use	Root	Medicinal use	NTFP	Locals
Herb	Krees	<i>Dioscorea deltoidea</i>	Land	Mountain region	Plenty	Plenty	Own use	Root	Medicinal use	NTFP	Locals
Shurb	Kaimbli	<i>Berberis lycium</i>	Land	Forest/ private	Plenty	Plenty	Own use	Root	Medicinal use	NTFP	Locals
Grasses	Drhub grass	<i>Cynodon dactylon</i>	Land	Moist and warm climate	Plenty	Plenty	Own use	Branch	Medicinal use	Religious purpose	Locals
Climber	Ivy	<i>Hedera helix</i>	Land	woodland, grassland, town and garden	Plenty	Plenty	Own use	Branch	Medicinal use	Parasite	Locals



**Format 19: Wild Plant Species of Importance**

1	2	3	4	5	6
Sl. No.	Local Name	Scientific Name	Variety	Importance (as economic, social, cultural etc.)	Status
1	Dhoop	<i>Juninea macrocephala</i>	NTFP	Economic and social	Plenty
2	Kour	<i>Picrorhiza kurrooa</i>	NTFP	Economic and social	Rare
3	Bankakri	<i>Podophyllum hexandrum</i>	NTFP	Economic and social	Rare
4	Kuth	<i>Saussurea Lappa</i>	NTFP	Economic and social	Rare
5	Nagchattri	<i>Trillium govanianum</i>	NTFP	Economic and social	Rare
6	Krees	<i>Dioscorea deltodea</i>	NTFP	Economic and social	Rare
7	Belladonna	<i>Atropa accuminata</i>	NTFP	Economic and social	Rare
8	Panchalan	<i>Rheum orerofitianum</i>	NTFP	Economic and social	Rare
9	Choria	<i>Angelica glauca</i>	NTFP	Economic and social	Rare
10	Hund	<i>Taraxacum officinalis</i>	NTFP	Economic and social	Plenty
11	Hamesh bahar	<i>Calendula officinalis</i>	NTFP	Economic and social	Plenty
12	Kajuban	<i>Arrubia benthami</i>	NTFP	Economic and social	Plenty
13	Kulmash	<i>Viburnum cotinifolium</i>	Bush/ Shrub	Social	Plenty
14	Neel kanth	<i>Ajuga bracteosa</i>	Herb	Social	Plenty
15	Suchal	<i>Melva neglecta</i>	Herb	Social	Plenty

16	Bhang	<i>Cannabis sativa</i>	Herb	Economic and social	Plenty
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### Format 20: Aquatic Biodiversity

1	2	3	4	5	6		7	8	9	10
Local Name	Scientific Name	Variety	Features	Habitat	Local Status		Uses	Associated TK	Other details	Community / Knowledge Holder
					Past	Present				
Frog (Mundak)	<i>Rana tigrana</i>	-	Long very powerful back led and web feet	Pond/river	Plenty	Rare	Important role in food chain	Frog are nature's pharmacy and provide a very efficient transfer of solar energy	Maintain food chain and food web.	Locals
Snow Trout	<i>Schizothorax spp.</i>	Indigenous	Cylindrical with both profile, arched, rounded abdomen, head large and pointed snout anteriorly, lower lip with a free posterior edge forming a natural sucker, barbels present, one each on maxillary and rostrum	Cold Pockets, snow fed areas	Plenty	Plenty	Food	Excellent source of protein and vitamins	Mode of catching hand net availability round the year & breeding season December to February	Locals
Watercress (Nag Biber)	<i>Nasturtium officinale</i>	Aquatic flowering plant	Rapid growing perennial plant	Pond / watery place	Plenty	Plenty	As vegetable	Oldest known leaf vegetables consumed by human	Its high content of Vitamin C makes it a remedy such that particularly valuable for chronic illnesses	Locals
Maiden hair (Ghvtheer)	<i>Adiantum caudatum</i>	Aquatic Grass	It is a perennial fern producing fronds	Found in shaded areas	Plenty	Plenty	As vegetable	Rich in vitamin-B	It is used in the treatment of chest infection, cough, diabetes, fever and skin disease	Locals

**Format 21: Wild Aquatic Plant Species of Importance**

1	2	3	4	5	6
Sl. No.	Local Name	Scientific Name	Variety	Importance	Trends
1	Watercress ( Nag Biber)	<i>Nasturtium officinale</i>	Aquatic flowering plant	Its high content of Vitamin C makes it remedy such that particular valuable for chronic illnesses	Local used as vegetable
2	Maiden hair (Ghvtheer)	<i>Adiantum caudatum</i>	Aquatic Grass	It is used n the treatment of chest infection, cough, diabetes, fever and skin disease	local

**Format 22: Wild Plants of Medicinal Importance**

1	2	3	4	5	6		7	8	9	10	11
Plant (Herb, Shrub, Tree)	Local Name	Scientific Name	Variety	Landscape / Habitat	Local Status		Associated TK	Uses (usage)	Part used	Other details market/ own use	Community/ Knowledge Holder
					Past	Present					
Tree	Deodar	<i>Cedrus deodara</i>	Conifer	Temperate forest	Plenty	Plenty	Timber for religious purpose	Timber	Wood	Own use	Locals
Tree	Postul	<i>Taxus baccata</i>	Conifer	Temperate forest	Plenty	Plenty	Medicine used for cancer treatment	Cancer treatment	Bark	Own use	Locals
Herb	Dhoop	<i>Juninea macrocephala</i>	NTFP	Alpine forest	Plenty	Rare	Religious purpose	Used in Dhoop making	Root	Own use	Locals
Herb	Kour	<i>Picrorhiza kurrooa</i>	NTFP	Alpine forest	Plenty	Rare	Medicinal use	Tonic and rheumatism	Root	Own use	Locals
Herb	Bankakri	<i>Podophyllum hexandrum</i>	NTFP	Alpine forest	Plenty	Rare	Medicinal use	Cancer treatment	Roots	Own use	Locals
Herb	Kuth	<i>Saussurea Lappa</i>	NTFP	Alpine forest	Plenty	Rare	Medicinal use	Ayurvedic medicines	Root	Own use	Locals

Herb	Nagchettri	<i>Trillium govanianum</i>	NTFP	Alpine forest	Plenty	Rare	Medicinal use	Root yield diosgenin hydrolysis	Root	Own use	Locals
Herb	Krees	<i>Dioscorea deltodea</i>	NTFP	Alpine forest	Plenty	Rare	Medicinal use	Gastric complaints	Root	Own use	Locals
Herb	Belladonna	<i>Atropa accuminata</i>	NTFP	Alpine forest	Plenty	Rare	Medicinal use	Anti asthmatic	Roots and leaves	Own use	Locals
Herb	Pamchalan	<i>Rheum oreroftianum</i>	NTFP	Alpine forest	Plenty	Rare	Medicinal use	Wound healing	Root	Own use	Locals
Shrub	Khumli	<i>Berberus lycium</i>	Thorny shrub	Temperate forest	Plenty	Rare	Medicinal use and for brush wood fencing	Rasaunt as cooling as agent of eyes	Root & leaves	Own use	Locals
Herb	Zakhme hayat	<i>Berginia ciliate</i>	NTFP	Alpine forest	Plenty	Rare	Medicinal use	Bone healing, diarrhea and vomiting	Root	Own use	Locals

**Format 23: Wild relatives of Crops**

1	2	3	4	5		6	7	8	9	10
Local Name	Scientific Name	Associated crop	Landscape / Habitat	Local Status		Uses (usage)	Part Used	Associated TK	Other details	Community / Know holder
				Past	Present					
Datura	<i>Datura stramonium</i>	Apple, pear, all domestic crops	Low land valley/wild	Plenty	Plenty	Asthama	Leaves	Fruit, leaves & flowers are offered to Lord Shiva	Weed / Medicinal use	Local
Vanpraan	<i>Allium atropurpureum</i>	All agricultural crop	Mountainous region	Plenty	Rare	Food	Leaves and flowers	Medicinal value	Exotic plant used as vegetable	Local
Hund	<i>Taraxacum officinale</i>	Agricultural crop	Mountainous region/ Low land valley	Plenty	Plenty	Food	Leaves	Medicinal value	Used as vegetable	Local
Sochal	<i>Malva neglecta</i>	Agricultural crop	Mountainous region/ Low land valley	Plenty	Rare	Food	Leaves	Medicinal value	Used as vegetable	Local
Seski	<i>Artemisia vestita</i>	Agricultural crop	Low land valley/wild	Plenty	Plenty	Stomach diseases	Leaves	Used in stomach pain	NTFP / medicinal use	Local

**Format 24: Ornamental Plants**

1	2	3	4	5	6	7	8
Local Name	Scientific Name	Variety	Habitat	Commercial / Non-commercial Uses	Associated TK	Any other Detail	Community/ Knowledge Holder
Chinar	<i>Plantanus orientalis</i>	Broad leave	Govt./ private premises	Non-commercial	Provide cool shade and home for many birds	Leaves are used as kangri fuel	Locals
Sarva kull	<i>Cupressus cashmeriana</i>	Kashmiri cypress	Govt./ private premises	Non-commercial	Ornamental plant	Provides scenery/beauty of the area	Locals
Ier kull	<i>Salix alba</i>	Weeping willow	Govt./ private premises	Commercial	Provides scenery/beauty of the area	Used in making cricket bats	Locals
Safeda	<i>Populus</i>	Populus	Govt./ private premises	Commercial	Provides scenery/beauty of the area	Used in fruit packing industries	Locals
Gainda	<i>Tagetes erecta</i>	Local/wild	Home Garden	Non-commercial	Ornamental	Religious	Locals
Gulab	<i>Rose indica</i>	Local /wild	Home Garden	Non-commercial	Ornamental	Religious	Locals
Daliya	<i>Dahlia pinnata</i>	Local home plant	Home Garden	Non-commercial	Ornamental	Religious	Locals



**Format 25: Fumigate / Chewing Plants**

1	2	3	4	5	6		7	8	9	10	11
Plant (Herb, Shrub, Tree)	Local Name	Scientific Name	Variety	Habitat	Local Status		Uses (usage)	Part used	Associated TK	Other details (mode of use)	Community knowledge holder
					Past	Present					
Herb	Pudina	<i>Mentha spp.</i>	Perennial herb	Homestead agricultural land	Plenty	Plenty	Spice and mint	Leaves	Locals use it in making Chatni / spices	Cooling agent and used in Ayush medicines	Locals
Herb	Methi	<i>Trigonella foenum-graecum</i>	Annual plant	-do-	Plenty	Plenty	Spice	Leaves	Used as spice	Leaves are used in food / spice	Locals
Herb	Sauf	<i>Foeniculum vulgare</i>	Harely perennial herb	-do-	Plenty	Plenty	Spice and chewing	Seed	Useful in digestion	Used as spice and medicine	Locals
Herb	Thom	<i>Allium sativum</i>	Perennial plant	-do-	Plenty	Plenty	Spice	Bulb	Provides more tasty food	Bulb is used as raw or cooked	Locals
Herb	Adrak	<i>Zingiber officinale</i>	Perennial plant	-do-	Plenty	Plenty	Spice	Rhizome roots	Widely used as spice	Used in spices and in medicines	locals

**Format 26: Timber Plants**

1	2	3	4		5	6	7	8
Local Name	Scientific Name	Habitat	Local Status		Other Uses, if any	Associated TK	Other Details	Community/ Knowledge Holder
			Past	Present				
Deodar	<i>Cedrus deodara</i>	Temperate forest	Plenty	Plenty	Religious purpose	Provide durable timber	Soft wood timber	Local
Kail	<i>Pinus walichiana</i>	Forest	Plenty	Plenty	Furniture and fruit packing	Provide durable timber	Soft wood timber	Local
Fir	<i>Abies pindrow</i>	Forest	Plenty	Plenty	Fruit packing industries	Providing good timber	Soft wood timber	Local
Supruce	<i>Picea smithiana</i>	Forest	Plenty	Rare	fruit packing industries	Provide good timber	Soft wood timber	Local
Akhroot	<i>Juglans regia</i>	Private/ Forest	Plenty	Plenty	Fruit and furniture	Provide good timber / fruit	Hard wood	Local
Popular	<i>Populous ciliata</i>	Private/ Forest	Plenty	Plenty	Packing industries	Provide good timber	Hard wood	Local





**Format 28: Wild Animals (Mammals, Birds, Reptiles, Amphibian, Insects, others)**

1	2	3	4	5	6	7		8	9	10	11	12
Animal Type	Local Name	Scientific Name	Habitat	Description	Season when seen	Local Status		Uses (if any)	Associated TK	Mode of Hunting, collecting (if any)	Other details	Community/ Knowledge Holder
						Past	Present					
Mammals	Langur	<i>Semnopithecus entellus</i>	Forest	Natural habitat	Summer	Plenty	Rare	-	Maintaining ecological balance	Nil	-	Local
Mammals	Himaliyan Black bear	<i>Ursus thibetanus</i>	Forest	Natural habitat	Summer	Plenty	Rare	-	-do-	Nil	-	Local
Mammals	Jackal	<i>Canis aureus</i>	Forest	Natural habitat	Summer	Plenty	Plenty	-	-do-	Nil	-	Local
Mammals	Jungli cat	<i>Felis chaus</i>	Forest	Natural habitat	Summer	Plenty	Rare	-	-do-	Nil	-	Local
Mammals	Leopard	<i>Panthera pardus</i>	Forest	Natural habitat	Summer	Plenty	Plenty	-	-do-	Nil	-	Local
Mammals	Snow leopard	<i>Uncia uncial</i>	Forest	Natural habitat	Winter	Plenty	Rare	-	-do-	Nil	-	Local
Mammals	Himaliyan mouse hare	<i>Ochotona roylei</i>	Forest	Natural habitat	Winter	Plenty	Plenty	-	-do-	Nil	-	Local
Birds	Alpine accentor	<i>Prunella collaris</i>	Forest	Natural habitat	Throughout year	Plenty	Plenty	-	-do-	Nil	-	Local
Birds	House crow	<i>Corvus splendens</i>	Forest	Natural habitat	Throughout year	Plenty	Plenty	-	-do-	Nil	-	Local
Birds	House sparrow	<i>Passer domesticus</i>	Forest	Natural habitat	Throughout year	Plenty	Plenty	-	-do-	Nil	-	Local
Birds	Griffen Vulture	<i>Gyps fulvus</i>	Forest	Natural habitat	Throughout year	Plenty	Plenty	-	-do-	Nil	-	Local

Birds	Black tit	<i>Parus rufonuchalis</i>	Forest	Natural habitat	Throughout year	Plenty	Plenty	-	-do-	Nil	-	Local
Birds	Blue rock pigeon	<i>Columba livia</i>	Forest	Natural habitat	Throughout year	Plenty	Plenty	-	-do-	Nil	-	Local
Birds	Common maina	<i>Acridotheres tristis</i>	Forest	Natural habitat	Throughout year	Plenty	Plenty	-	-do-	Nil	-	Local
Birds	Commom cuckoo	<i>Cuculus canorus</i>	Forest	Natural habitat	Throughout year	Plenty	Plenty	-	-do-	Nil	-	Local
Birds	Chukar	<i>Alecturus chukar</i>	Forest	Natural habitat	Throughout year	Plenty	Plenty	-	-do-	Nil	-	Local

**Format 29: Flora**

**URBAN BIODIVERSITY**

1	2	3	4	5	6	7
Sr. No.	Local Name	Scientific Name	Type of Plants	Habitat	Flowering Season	Remarks (Rare / Common etc.)
NA	NA	NA	NA	NA	NA	NA

**Format 30: Fauna**

1	2	3	4	5	6
Sr. No.	Local Name	Scientific Name	Type of Animals (Mammals / Birds / Fish / Insect etc.)	Habitat	Remarks (Rare / Common etc.)
NA	NA	NA	NA	NA	NA



**Format 31: Any other information of local importance**

1	2	3
Sr. No.	Information of local importance	Remarks

*End of Part II*