

Environmental and Social Impact Assessment

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Uzbekistan: Samarkand 1 Solar PV and BESS Project

Appendixes – Part 10

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Figure 49: Barneby star thistle (*Centaurea solstitialis*), alien weed



Figure 50: Bathurst burr, or cocklebur (*Xanthium spinosum*), alien weed



Figure 51: Knot grass (*Paspalum distichum*), alien weed



Figure 52: Water-clover (*Marsilea quadrifolia*), aquatic fern



Figure 53: Reed (*Phragmites australis*), a dominant of wetland and riparian vegetation



Figure 54: Licorice (*Glycyrrhiza glabra*), a dominant of riparian vegetation



Figure 55: Oleaster (*Elaeagnus angustifolia*), a common species of riparian vegetation



Figure 56: Sallowthorn or Sea Buckthorn (*Hippophae rhamnoides*), occurs sporadically in riparian scrub in the valley of Zeravshan River



Figure 57: Siberian salt-tree (*Caragana (Halimodendron) halodendron*), a common species of riparian vegetation



Figure 58: Caper (*Capparis spinosa*), a common species of secondary forb-grass communities on fallow lands

Annex C: Species check list

Table 2: Check list of flora

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Achillea arabica</i> (<i>Achillea biebersteinii</i>)	тысячелистник арабский (тысячелистник Биберштейна)	Yarrow	perennial	Asteraceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	5, 6, 21	NE	none	Regional	native	O
<i>Achillea wilhelmsii</i> (<i>Achillea kermanica</i>)	тысячелистник Вильгельмса (тысячелистник керманский)	Yarrow	Perennial	Asteraceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	18, 19	NE	none	Regional	native	O
<i>Alhagi pseudalhagi</i>	верблюжья колючка ложная	Camel Thorn	perennial	Fabaceae	all types	all	NE	none	Regional	native	C-R
<i>Allium drepanophyllum</i>	лук серполистый		perennial	Amaryllidaceae	Dry grasslands	6	NE	none	Regional	native	R
<i>Allium griffithii</i>	лук Гриффита		Perennial	Amaryllidaceae	Dry grasslands	18, 19	NE	none	Regional	native	R
<i>Alyssum desertorum</i>	бурачок пустынный	Desert madwort	annual	Brassicaceae	all types	1-8, 10-21	NE	none	Regional	native	O-F
<i>Aphanopleura capillifolia</i>	афаноплеура волосистолистная		annual	Apiaceae	Dry grasslands; Fallow lands	2, 3, 4, 7	NE	none	Regional	native	O-R

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Arenaria leptoclados</i>	песчанка тонковетвистая	Thyme-Leaved Sandwort	annual	Caryophyllaceae	Dry grasslands; Fallow lands	1-8, 18, 19	NE	none	Regional	native	O-R
<i>Artemisia serotina</i>	полынь поздняя	Sagebrush	perennial	Asteraceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	9	NE	none	Regional	native	R
<i>Astragalus filicaulis</i>	астрагал тонкостебельный		annual	Fabaceae	Dry grasslands; Fallow lands	6, 16-19, 21	NE	none	Regional	native	O-F
<i>Bromus tectorum</i>	костер кровельный	Wall Brome	annual	Poaceae	all types	5, 6, 8, 9, 18-21	NE	none	Transcontinental	native	O-F
<i>Capparis spinosa</i>	каперцы колючие	Caper	perennial	Capparaceae	Fallow lands; Boundary-strips, roadsides	2, 5, 6, 8, 20	LC	none	Regional	native	O-R
<i>Capsella bursa-pastoris</i>	пастушья сумка обыкновенная	Shepherd's -purse	annual	Brassicaceae	all types of modified habitats	7, 9, 19-21	LC	none	Transcontinental	alien	O-F
<i>Carduus arabicus</i>	чертополох беловатый, чертополох арабский	Italian plumeless thistle, Sheep thistle	annual	Asteraceae	all types of modified habitats	9	NE	none	Regional	native	O

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Carex pachystylis</i>	осока толстостолбиковая, ранг	Thick-stem sedge, desert sedge	perennial	Cyperaceae	Dry grasslands; Fallow lands	1-8, 10-19, 21	LC	none	Regional	native	A-O
<i>Carthamus oxyacanthus</i>	сафлор остроколючий	Wild safflower, Jeweled distaff thistle	annual	Asteraceae	all types of modified habitats; Dry grasslands	9, 20	NE	none	Regional	native	O
<i>Centaurea benedicta</i> (<i>Cnicus benedictus</i>)	василек благословенный (волчец благословенный)	Blessed thistle	annual	Asteraceae	all types of modified habitats	5, 6	NE	none	Transcontinental	alien	R
<i>Centaurea iberica</i>	василек иберийский	Iberian knapweed	biennial	Asteraceae	all types of modified habitats	5, 6, 8, 9, 20	NE	none	Transcontinental	alien	O-R
<i>Centaurea virgata</i> subsp. <i>squarrosa</i>	василек растопыренный	Squarrose knapweed	perennial	Asteraceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	6, 9, 20	NE	none	Regional	native	O
<i>Ceratocephala orthoceras</i>	рогоглавник пряморогий	Curveseed butterwort	annual	Ranunculaceae	all types	1-17, 21	NE	none	Transcontinental	native	O-F
<i>Cichorium intybus</i>	цикорий обыкновенный	Chicory	perennial	Asteraceae	mesic modified habitats	5, 9, 20, 21	LC	none	Transcontinental	alien	O

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Cirsium vulgare</i>	бодяк обыкновенный	Black Thistle, Common Thistle	biennial	Asteraceae	mesic modified habitats	9	NE	none	Transcontinental	native	R
<i>Colchicum robustum</i> (Merendera robusta)	безвременник крупный (мерендера крупная)		perennial	Colchicaceae	Dry grasslands	11, 12, 13	NE	none	Regional	native	O-F
<i>Convolvulus arvensis</i>	вьюнок полевой	Bindweed	Perennial, liana	Convolvulaceae	all types of modified habitats	5, 6, 9, 20, 21	NE	none	Transcontinental	alien	O-F
<i>Corydalis sewerzowii</i>	хохлатка Северцова		perennial	Papaveraceae	Dry grasslands	6	NE	none	Regional	native	O
<i>Cousinia microcarpa</i>	кузиния мелкоплодная		biennial	Asteraceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	5	NE	none	Regional	native	O
<i>Cousinia resinosa</i>	кузиния смолистая		perennial	Asteraceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	1-8, 10-19, 21	NE	none	Regional	native	F-R
<i>Crocus korolkowii</i>	шафран Королькова		perennial	Iridaceae	Dry grasslands	6	NE	none	Regional	native	O

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Cryptospora falcata</i> (<i>Cryptospora omissa</i>)	скрытосемянница а упущенная		annual	Brassicaceae	Boundary-strips, roadsides	19, 21	NE	none	Regional	native	O
<i>Descurainia sophia</i>	дескурения София	Flaxweed Tansymustard, Flixweed	annual	Brassicaceae	all types of modified habitats	9, 19-21	NE	none	Transcontinental	native	O-F
<i>Draba verna</i> (<i>Erophila verna</i>)	крупка весенняя (веснянка весенняя)	Spring Draba	annual	Brassicaceae	Dry grasslands; Fallow lands; Boundary- strips, roadsides	3-6, 8, 10-19, 21	NE	none	Transcontinental	native	C-O
<i>Echium biebersteinii</i>	синяк Биберштейна		biennial	Boraginaceae	Boundary- strips, roadsides	9, 20	NE	none	Regional	native	R
<i>Erodium cicutarium</i>	аистник обыкновенный	Common Storks Bill	annual	Geraniaceae	all types	all	NE	none	Transcontinental	native	O-F
<i>Eruca sativa</i>	эрука посевная (индау)	Rocket	annual	Brassicaceae	Arable lands; Fallow lands; Boundary- strips, roadsides	15, 21	NE	none	Transcontinental	alien	O

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Eryngium caeruleum</i>	синеголовник голубой	Sea Holly	biennial	Apiaceae	Fallow lands; Boundary-strips, roadsides	9, 19	NE	none	Regional	native	O-R
<i>Gagea chomutovae</i>	гусиный лук Хомутовой		perennial	Liliaceae	Dry grasslands	6	NE	none	Regional	native	R
<i>Gagea graminifolia</i>	гусиный лук злаколистный		perennial	Liliaceae	Dry grasslands; Fallow lands	4	NE	none	Regional	native	O
<i>Gagea graminifolia</i>	гусиный лук злаколистный		perennial	Liliaceae	Dry grasslands; Fallow lands	4, 6, 10-13, 15-19	NE	none	Regional	native	O-R
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)	гусиный лук стебельчатый		perennial	Liliaceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	16-19, 21	NE	none	Regional	native	O-F
<i>Gagea olgae</i>	гусиный лук Ольги		perennial	Liliaceae	Dry grasslands; Fallow lands	1-6, 8, 10-19	NE	none	Regional	native	C-O
<i>Gentiana olivieri</i>	горечавка Оливье		perennial	Gentianaceae	Dry grasslands; Fallow lands	4	NE	none	Regional	native	O
<i>Gleditsia caspica</i>	гледичия каспийская	Caspian Locust	tree	Fabaceae	Boundary-strips, roadsides	20	EN	none	Regional	introduced, planted	R

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
Goldbachia torulosa	гольдбахия бугорчатая		annual	Brassicaceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	21	NE	none	Regional	native	O
Haplophyllum versicolor	цельнолистник разноцветный		perennial	Rutaceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	5, 6, 8, 18, 19	NE	none	Regional	native	O-R
Holosteum umbellatum	костенец зонтичный	Jagged Chickweed	annual	Caryophyllaceae	all types	1-19, 21	NE	none	Transcontinental	native	O-F
Hordeum murinum subsp. leporinum (Hordeum leporinum)	ячмень заячий	Wall Barley, Falce Barley	annual	Poaceae	all types	all except for 1	LC	none	Regional	native	A-R
Hypocoum pendulum (Hypocoum parviflorum)	гипекоум мелкоцветковый (мачок мелкоцветковый)		annual	Papaveraceae	Dry grasslands; Arable lands; Fallow lands; Boundary-strips, roadsides	14-19, 21	NE	none	Regional	native	O-R

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Ixiolirion tataricum</i>	иксиолирион татарский		perennial	Ixioliriaceae	all types	3-8, 10-19, 21	NE	none	Regional	native	O-R
<i>Koelpinia linearis</i>	кельпиния линейная		annual	Asteraceae	Dry grasslands; Arable lands; Fallow lands; Boundary-strips, roadsides	5-8, 11-13, 16-19	NE	none	Regional	native	O-R
<i>Lamium amplexicaule</i>	ясотка стеблеобъемлющая	Common Henbit	annual	Lamiaceae	all types of modified habitats	6, 7, 9, 19, 20	NE	none	Transcontinental	native	O-R
<i>Lepidium draba</i> (<i>Cardaria draba</i>)	клоповник крупковый (сердечница крупковая)	Heart-Pod Hoary Cress	perennial	Brassicaceae	Boundary-strips, roadsides	21	NE	none	Transcontinental	native	F
<i>Leptaleum filifolium</i>	лепталеум нителистный		annual	Brassicaceae	Dry grasslands; Fallow lands	11-14, 16-18	NE	none	Regional	native	O-F
<i>Malus domestica</i>	яблоня домашняя	Apple	tree	Rosaceae	Gardens; Settlements	9, 20	NE	none	Transcontinental	introduced, planted	D
<i>Malva neglecta</i>	просвирник пренебреженный	Buttonweed, Dwarf Mallow	perennial	Malvaceae	all types of modified habitats	8, 9, 20	LC	none	Transcontinental	alien	O

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Medicago monantha</i> (Trigonella geminiflora)	пажитник парноцветковый		annual	Fabaceae	Dry grasslands; Arable lands; Fallow lands; Boundary-strips, roadsides	1-5, 7, 10-19, 21	NE	none	Regional	native	O-F
<i>Meniocus linifolius</i>	плоскоплодник льнолистный		annual	Brassicaceae	Dry grasslands; Arable lands; Fallow lands; Boundary-strips, roadsides	16-18, 19	NE	none	Regional	native	O
<i>Minuartia meyeri</i>	минуарция Мейера		annual	Caryophyllaceae	Dry grasslands; Fallow lands	1, 2	NE	none	Regional	native	R
<i>Nonea caspica</i>	нонея каспийская		annual	Boraginaceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	21	NE	none	Regional	native	O

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Onopordum leptolepis</i>	татарник тонкочешуйчатый		biennial	Asteraceae	all types of modified habitats	5, 9, 20	NE	none	Regional	native	O
<i>Papaver pavoninum</i>	мак павлиний		annual	Papaveraceae	all types	5-9, 14, 15, 17-21	NE	none	Regional	native	O-R
<i>Parentucellia flaviflora</i>	парентучеллия желтоцветная	Yellow Broadleaf Glandweed	annual	Orobanchaceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	19	NE	none	Regional	native	O
<i>Peganum harmala</i>	гармала обыкновенная	African rue, Harmel	perennial	Nitrariaceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	1-3, 5-8, 10-19	NE	none	Regional	native	F-R
<i>Phlomis thapsoides</i>	зопник корвяковый		perennial	Lamiaceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	6, 18, 19	NE	none	Regional	native	F-R

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Phlomis labiosa</i>	фломоидес губастый		perennial	Lamiaceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	6, 18, 19	NE	none	Regional	native	O-F
<i>Phragmites australis</i>	тростник южный	Common Reed	perennial	Poaceae	Canals and drainage channels	19	LC	none	Transcontinental	native	O
<i>Plantago lanceolata</i>	подорожник ланцетный	Ribwort Plantain	perennial	Plantaginaceae	all types	2, 5, 6, 8, 9, 20	LC	none	Transcontinental	native	O-F
<i>Poa bulbosa</i>	мятлик луковичный	Bulbous Bluegrass	perennial	Poaceae	all types	all	NE	none	Transcontinental	native	A-O
<i>Ranunculus sewerzowii</i>	лютик Северцова		perennial	Ranunculaceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	3-6, 8, 11-13, 16-19	NE	none	Regional	native	O-F
<i>Rhaponticum repens</i> (Acroptilon repens)	горчак ползучий	Russian Knapweed	perennial	Asteraceae	Boundary-strips, roadsides	6, 20	NE	none	Transcontinental	native, quarantine weed	O-R
<i>Rosa persica</i> (Hulthemia persica)	хультемия персидская	Persian rose	subshrub	Rosaceae	Dry grasslands; Fallow lands; Boundary-	4-6, 9, 10, 15, 19-21	NE	none	Regional	native	O-F

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
					strips, roadsides						
<i>Sedum aetnense</i> (<i>Sedum tetramerum</i>)	очиток этнинский (очиток четырехмерный)		annual	Crassulaceae	Dry grasslands; Fallow lands	1, 2, 3	NE	none	Regional	native	O-F
<i>Sisymbrium altissimum</i>	гулявник высочайший	Jim Hill Mustard	annual	Brassicaceae	all types of modified habitats	5, 6, 9, 19	NE	none	Transcontinental	alien	O-F
<i>Sophora pachycarpa</i>	софора толстоплодная (вексибия толстоплодная)		perennial	Fabaceae	Dry grasslands; Fallow lands; Boundary-strips, roadsides	5, 6, 8, 9, 20	NE	none	Regional	native	O-R
<i>Strigosella africana</i>	стригозелла африканская	African mustard	annual	Brassicaceae	all types	5	NE	none	Regional	alien	O-R
<i>Strigosella brevipes</i>	стригозелла коротконогая		annual	Brassicaceae	Dry grasslands; Fallow lands	11, 13	NE	none	Regional	native	O-R
<i>Taraxacum monochlamydeum</i>	одуванчик однопокровный		perennial	Asteraceae	all types	3-8, 18, 19	NE	none	Regional	native	F-R

Species	Common Name (Russian)	Common Name (English)	Life form	Family	Habitat type	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
<i>Trigonella grandiflora</i>	пажитник крупноцветковый		annual	Fabaceae	Arable lands; Fallow lands; Boundary-strips, roadsides	19, 21	LC	none	Regional	native	O
<i>Triticum aestivum</i>	пшеница мягкая	Bread Wheat	Annual	Poaceae	Arable lands	21	NE	none	Transcontinental	planted (agricultural crop)	D
<i>Turgenia latifolia</i>	тургеня широколистная	Broadleaf false carrot	annual	Apiaceae	Fallow lands	5, 6	NE	none	Regional	native	O-R
<i>Ulmus pumila</i>	вяз низкий, карагач	Siberian Elm	tree	Ulmaceae	Boundary-strips, roadsides; Settlements	20	LC	none	Regional	native, planted	R
<i>Xanthium spinosum</i>	дурнишник колючий	Bathurst burr	annual	Asteraceae	Fallow lands; Boundary-strips, roadsides	5, 6, 8, 9, 20	NE	none	Transcontinental	alien	O-R
<i>Ziziphora tenuior</i>	зизифора тонкая		annual	Lamiaceae	Dry grasslands; Fallow lands	5, 6	NE	none	Regional	native	O-R

Annex D: Check list of sample plots

Table 3: Check list of sample plots

Species	Common Name (English)	Life form	Sample Plot No.	IUCN	UzRDB	Range (Endemic/ Regional/ Transcontinental)	Native status (native / alien / planted)	Abundance
Alhagi pseudalhagi	Camel Thorn	perennial	1	NE	none	Regional	native	Rare
Alyssum desertorum	Desert madwort	annual	1	NE	none	Regional	native	Occasional
Arenaria leptoclados	Thyme-Leaved Sandwort	annual	1	NE	none	Regional	native	Rare
Carex pachystylis	Thick-stem sedge, desert sedge	perennial	1	LC	none	Regional	native	Frequent
Ceratocephala orthoceras	Curveseed butterwort	annual	1	NE	none	Transcontinental	native	Occasional
Cousinia resinosa		perennial	1	NE	none	Regional	native	Rare
Erodium cicutarium	Common Storks Bill	annual	1	NE	none	Transcontinental	native	Frequent
Gagea olgae		perennial	1	NE	none	Regional	native	Common
Holosteum umbellatum	Jagged Chickweed	annual	1	NE	none	Transcontinental	native	Occasional
Medicago monantha (Trigonella geminiflora)		annual	1	NE	none	Regional	native	Occasional
Minuartia meyeri		annual	1	NE	none	Regional	native	Rare
Peganum harmala	African rue, Harmel	perennial	1	NE	none	Regional	native	Rare
Poa bulbosa	Bulbous Bluegrass	perennial	1	NE	none	Transcontinental	native	Common
Sedum aetnense (Sedum tetramerum)		annual	1	NE	none	Regional	native	Frequent
Alhagi pseudalhagi	Camel Thorn	perennial	2	NE	none	Regional	native	Rare

<i>Alyssum desertorum</i>	Desert madwort	annual	2	NE	none	Regional	native	Occasional
<i>Aphanopleura capillifolia</i>		annual	2	NE	none	Regional	native	Occasional
<i>Arenaria leptoclados</i>	Thyme-Leaved Sandwort	annual	2	NE	none	Regional	native	Occasional
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	2	LC	none	Regional	native	Frequent
<i>Capparis spinosa</i>	Caper	perennial	2	LC	none	Regional	native	Rare
<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	2	NE	none	Transcontinental	native	Occasional
<i>Cousinia resinosa</i>		perennial	2	NE	none	Regional	native	Rare
<i>Erodium cicutarium</i>	Common Storks Bill	annual	2	NE	none	Transcontinental	native	Frequent
<i>Gagea olgae</i>		perennial	2	NE	none	Regional	native	Common
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	2	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	2	LC	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	2	NE	none	Regional	native	Occasional
<i>Minuartia meyeri</i>		annual	2	NE	none	Regional	native	Rare
<i>Peganum harmala</i>	African rue, Harmel	perennial	2	NE	none	Regional	native	Occasional
<i>Plantago lanceolata</i>	Ribwort Plantain	perennial	2	LC	none	Transcontinental	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	2	NE	none	Transcontinental	native	Common
<i>Sedum aetnense</i> (<i>Sedum tetramerum</i>)		annual	2	NE	none	Regional	native	Frequent
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	3	NE	none	Regional	native	Frequent
<i>Alyssum desertorum</i>	Desert madwort	annual	3	NE	none	Regional	native	Occasional

<i>Aphanopleura capillifolia</i>		annual	3	NE	none	Regional	native	Occasional
<i>Arenaria leptoclados</i>	Thyme-Leaved Sandwort	annual	3	NE	none	Regional	native	Occasional
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	3	LC	none	Regional	native	Frequent
<i>Ceratocephala orthoceras</i>	Curvseed butterwort	annual	3	NE	none	Transcontinental	native	Occasional
<i>Cousinia resinosa</i>		perennial	3	NE	none	Regional	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	3	NE	none	Transcontinental	native	Occasional
<i>Erodium cicutarium</i>	Common Storks Bill	annual	3	NE	none	Transcontinental	native	Frequent
<i>Gagea olgae</i>		perennial	3	NE	none	Regional	native	Frequent
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	3	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	3	LC	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	3	NE	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	3	NE	none	Regional	native	Occasional
<i>Peganum harmala</i>	African rue, Harmel	perennial	3	NE	none	Regional	native	Rare
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	3	NE	none	Transcontinental	native	Common
<i>Ranunculus sewerzowii</i>		perennial	3	NE	none	Regional	native	Occasional
<i>Sedum aetnense</i> (<i>Sedum tetramerum</i>)		annual	3	NE	none	Regional	native	Occasional
<i>Taraxacum monochlamydeum</i>		perennial	3	NE	none	Regional	native	Occasional
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	4	NE	none	Regional	native	Occasional

<i>Alyssum desertorum</i>	Desert madwort	annual	4	NE	none	Regional	native	Occasional
<i>Aphanopleura capillifolia</i>		annual	4	NE	none	Regional	native	Occasional
<i>Arenaria leptoclados</i>	Thyme-Leaved Sandwort	annual	4	NE	none	Regional	native	Occasional
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	4	LC	none	Regional	native	Common
<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	4	NE	none	Transcontinental	native	Occasional
<i>Cousinia resinosa</i>		perennial	4	NE	none	Regional	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	4	NE	none	Transcontinental	native	Frequent
<i>Erodium cicutarium</i>	Common Storks Bill	annual	4	NE	none	Transcontinental	native	Occasional
<i>Gagea graminifolia</i>		perennial	4	NE	none	Regional	native	Occasional
<i>Gagea olgae</i>		perennial	4	NE	none	Regional	native	Common
<i>Gentiana olivieri</i>		perennial	4	NE	none	Regional	native	Occasional
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	4	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	4	LC	none	Regional	native	Rare
<i>Ixiolirion tataricum</i>		perennial	4	NE	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	4	NE	none	Regional	native	Frequent
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	4	NE	none	Transcontinental	native	Abundant
<i>Ranunculus sewerzowii</i>		perennial	4	NE	none	Regional	native	Occasional
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	Persian rose	subshrub	4	NE	none	Regional	native	Occasional

Taraxacum monochlamydeum		perennial	4	NE	none	Regional	native	Occasional
Achillea arabica (Achillea biebersteinii)	Yarrow	perennial	5	NE	none	Regional	native	Occasional
Alhagi pseudalhagi	Camel Thorn	perennial	5	NE	none	Regional	native	Occasional
Alyssum desertorum	Desert madwort	annual	5	NE	none	Regional	native	Occasional
Arenaria leptoclados	Thyme-Leaved Sandwort	annual	5	NE	none	Regional	native	Occasional
Bromus tectorum	Wall Brome	annual	5	NE	none	Transcontinental	native	Frequent
Capparis spinosa	Caper	perennial	5	LC	none	Regional	native	Rare
Centaurea benedicta (Cnicus benedictus)	Blessed thistle	annual	5	NE	none	Transcontinental	alien	Rare
Centaurea iberica	Iberian knapweed	biennial	5	NE	none	Transcontinental	alien	Occasional
Ceratocephala orthoceras	Curveseed butterwort	annual	5	NE	none	Transcontinental	native	Occasional
Cichorium intybus	Chicory	perennial	5	LC	none	Transcontinental	alien	Occasional
Convolvulus arvensis	Bindweed	Perennial, liana	5	NE	none	Transcontinental	alien	Occasional
Cousinia microcarpa		biennial	5	NE	none	Regional	native	Occasional
Cousinia resinosa		perennial	5	NE	none	Regional	native	Frequent
Draba verna (Erophila verna)	Spring Draba	annual	5	NE	none	Transcontinental	native	Occasional
Erodium cicutarium	Common Storks Bill	annual	5	NE	none	Transcontinental	native	Occasional
Gagea olgae		perennial	5	NE	none	Regional	native	Occasional
Haplophyllum versicolor		perennial	5	NE	none	Regional	native	Occasional

<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	5	LC	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	5	NE	none	Regional	native	Occasional
<i>Koeleria linearis</i>		annual	5	NE	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	5	NE	none	Regional	native	Occasional
<i>Onopordum leptolepis</i>		biennial	5	NE	none	Regional	native	Occasional
<i>Papaver pavoninum</i>		annual	5	NE	none	Regional	native	Occasional
<i>Peganum harmala</i>	African rue, Harmel	perennial	5	NE	none	Regional	native	Rare
<i>Plantago lanceolata</i>	Ribwort Plantain	perennial	5	LC	none	Transcontinental	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	5	NE	none	Transcontinental	native	Common
<i>Ranunculus sewerzowii</i>		perennial	5	NE	none	Regional	native	Occasional
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	Persian rose	subshrub	5	NE	none	Regional	native	Occasional
<i>Sisymbrium altissimum</i>	Jim Hill Mustard	annual	5	NE	none	Transcontinental	alien	Occasional
<i>Sophora pachycarpa</i>		perennial	5	NE	none	Regional	native	Occasional
<i>Strigosella africana</i>	African mustard	annual	5	NE	none	Regional	alien	Rare
<i>Taraxacum monochlamydeum</i>		perennial	5	NE	none	Regional	native	Rare
<i>Turgenia latifolia</i>	Broadleaf false carrot	annual	5	NE	none	Regional	native	Occasional
<i>Xanthium spinosum</i>	Bathurst burr	annual	5	NE	none	Transcontinental	alien	Rare
<i>Ziziphora tenuior</i>		annual	5	NE	none	Regional	native	Occasional
<i>Achillea arabica</i> (<i>Achillea biebersteinii</i>)	Yarrow	perennial	6	NE	none	Regional	native	Occasional

<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	6	NE	none	Regional	native	Occasional
<i>Allium drepanophyllum</i>		perennial	6	NE	none	Regional	native	Rare
<i>Alyssum desertorum</i>	Desert madwort	annual	6	NE	none	Regional	native	Occasional
<i>Arenaria leptoclados</i>	Thyme-Leaved Sandwort	annual	6	NE	none	Regional	native	Occasional
<i>Astragalus filicaulis</i>		annual	6	NE	none	Regional	native	Occasional
<i>Bromus tectorum</i>	Wall Brome	annual	6	NE	none	Transcontinental	native	Frequent
<i>Capparis spinosa</i>	Caper	perennial	6	LC	none	Regional	native	Occasional
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	6	LC	none	Regional	native	Abundant
<i>Centaurea benedicta</i> (Cnicus benedictus)	Blessed thistle	annual	6	NE	none	Transcontinental	alien	Rare
<i>Centaurea iberica</i>	Iberian knapweed	biennial	6	NE	none	Transcontinental	alien	Occasional
<i>Centaurea virgata</i> subsp. <i>squarrosa</i>	Squarrose knapweed	perennial	6	NE	none	Regional	native	Occasional
<i>Convolvulus arvensis</i>	Bindweed	Perennial, liana	6	NE	none	Transcontinental	alien	Occasional
<i>Corydalis sewerzowii</i>		perennial	6	NE	none	Regional	native	Occasional
<i>Cousinia microcarpa</i>		biennial	6	NE	none	Regional	native	Occasional
<i>Cousinia resinosa</i>		perennial	6	NE	none	Regional	native	Occasional
<i>Crocus korolkowii</i>		perennial	6	NE	none	Regional	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	6	NE	none	Transcontinental	native	Frequent
<i>Erodium cicutarium</i>	Common Storks Bill	annual	6	NE	none	Transcontinental	native	Occasional
<i>Gagea chomutovae</i>		perennial	6	NE	none	Regional	native	Rare
<i>Gagea graminifolia</i>		perennial	6	NE	none	Regional	native	Occasional
<i>Gagea olgae</i>		perennial	6	NE	none	Regional	native	Frequent

<i>Haplophyllum versicolor</i>		perennial	6	NE	none	Regional	native	Rare
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	6	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	6	LC	none	Regional	native	Frequent
<i>Ixiolirion tataricum</i>		perennial	6	NE	none	Regional	native	Occasional
<i>Koelpinia linearis</i>		annual	6	NE	none	Regional	native	Occasional
<i>Lamium amplexicaule</i>	Common Henbit	annual	6	NE	none	Transcontinental	native	Occasional
<i>Papaver pavoninum</i>		annual	6	NE	none	Regional	native	Occasional
<i>Peganum harmala</i>	African rue, Harmel	perennial	6	NE	none	Regional	native	Rare
<i>Phlomis thapsoides</i>		perennial	6	NE	none	Regional	native	Occasional
<i>Phlomis labiosa</i>		perennial	6	NE	none	Regional	native	Frequent
<i>Plantago lanceolata</i>	Ribwort Plantain	perennial	6	LC	none	Transcontinental	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	6	NE	none	Transcontinental	native	Abundant
<i>Ranunculus sewerzowii</i>		perennial	6	NE	none	Regional	native	Occasional
<i>Rhaponticum repens</i> (<i>Acroptilon repens</i>)	Russian Knapweed	perennial	6	NE	none	Transcontinental	native, quarantine weed	Rare
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	Persian rose	subshrub	6	NE	none	Regional	native	Occasional
<i>Sisymbrium altissimum</i>	Jim Hill Mustard	annual	6	NE	none	Transcontinental	alien	Frequent
<i>Sophora pachycarpa</i>		perennial	6	NE	none	Regional	native	Occasional
<i>Strigosella africana</i>	African mustard	annual	6	NE	none	Regional	alien	Rare
<i>Taraxacum monochlamydeum</i>		perennial	6	NE	none	Regional	native	Occasional

<i>Turgenia latifolia</i>	Broadleaf false carrot	annual	6	NE	none	Regional	native	Rare
<i>Xanthium spinosum</i>	Bathurst burr	annual	6	NE	none	Transcontinental	alien	Occasional
<i>Ziziphora tenuior</i>		annual	6	NE	none	Regional	native	Rare
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	7	NE	none	Regional	native	Rare
<i>Alyssum desertorum</i>	Desert madwort	annual	7	NE	none	Regional	native	Occasional
<i>Aphanopleura capillifolia</i>		annual	7	NE	none	Regional	native	Rare
<i>Arenaria leptoclados</i>	Thyme-Leaved Sandwort	annual	7	NE	none	Regional	native	Rare
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	annual	7	LC	none	Transcontinental	alien	Occasional
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	7	LC	none	Regional	native	Occasional
<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	7	NE	none	Transcontinental	native	Occasional
<i>Cousinia resinosa</i>		perennial	7	NE	none	Regional	native	Rare
<i>Erodium cicutarium</i>	Common Storks Bill	annual	7	NE	none	Transcontinental	native	Occasional
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	7	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	7	LC	none	Regional	native	Rare
<i>Ixiolirion tataricum</i>		perennial	7	NE	none	Regional	native	Rare
<i>Koelpinia linearis</i>		annual	7	NE	none	Regional	native	Rare
<i>Lamium amplexicaule</i>	Common Henbit	annual	7	NE	none	Transcontinental	native	Rare
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	7	NE	none	Regional	native	Occasional
<i>Papaver pavoninum</i>		annual	7	NE	none	Regional	native	Rare

<i>Peganum harmala</i>	African rue, Harmel	perennial	7	NE	none	Regional	native	Rare
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	7	NE	none	Transcontinental	native	Occasional
<i>Taraxacum monochlamydeum</i>		perennial	7	NE	none	Regional	native	Occasional
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	8	NE	none	Regional	native	Frequent
<i>Alyssum desertorum</i>	Desert madwort	annual	8	NE	none	Regional	native	Frequent
<i>Arenaria leptoclados</i>	Thyme-Leaved Sandwort	annual	8	NE	none	Regional	native	Occasional
<i>Bromus tectorum</i>	Wall Brome	annual	8	NE	none	Transcontinental	native	Frequent
<i>Capparis spinosa</i>	Caper	perennial	8	LC	none	Regional	native	Rare
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	8	LC	none	Regional	native	Abundant
<i>Centaurea iberica</i>	Iberian knapweed	biennial	8	NE	none	Transcontinental	alien	Rare
<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	8	NE	none	Transcontinental	native	Occasional
<i>Cousinia resinosa</i>		perennial	8	NE	none	Regional	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	8	NE	none	Transcontinental	native	Common
<i>Erodium cicutarium</i>	Common Storks Bill	annual	8	NE	none	Transcontinental	native	Frequent
<i>Gagea olgae</i>		perennial	8	NE	none	Regional	native	Frequent
<i>Haplophyllum versicolor</i>		perennial	8	NE	none	Regional	native	Rare
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	8	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	8	LC	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	8	NE	none	Regional	native	Occasional
<i>Koelpinia linearis</i>		annual	8	NE	none	Regional	native	Rare

<i>Malva neglecta</i>	Buttonweed, Dwarf Mallow	perennial	8	LC	none	Transcontinental	alien	Occasional
<i>Papaver pavoninum</i>		annual	8	NE	none	Regional	native	Rare
<i>Peganum harmala</i>	African rue, Harmel	perennial	8	NE	none	Regional	native	Rare
<i>Plantago lanceolata</i>	Ribwort Plantain	perennial	8	LC	none	Transcontinental	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	8	NE	none	Transcontinental	native	Abundant
<i>Ranunculus sewerzowii</i>		perennial	8	NE	none	Regional	native	Occasional
<i>Sophora pachycarpa</i>		perennial	8	NE	none	Regional	native	Occasional
<i>Strigosella africana</i>	African mustard	annual	8	NE	none	Regional	alien	Rare
<i>Taraxacum monochlamydeum</i>		perennial	8	NE	none	Regional	native	Occasional
<i>Xanthium spinosum</i>	Bathurst burr	annual	8	NE	none	Transcontinental	alien	Rare
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	9	NE	none	Regional	native	Occasional
<i>Artemisia serotina</i>	Sagebrush	perennial	9	NE	none	Regional	native	Rare
<i>Bromus tectorum</i>	Wall Brome	annual	9	NE	none	Transcontinental	native	Occasional
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	annual	9	LC	none	Transcontinental	alien	Occasional
<i>Carduus arabicus</i>	Italian plumeless thistle, Sheep thistle	annual	9	NE	none	Regional	native	Occasional
<i>Carthamus oxyacanthus</i>	Wild safflower, Jeweled distaff thistle	annual	9	NE	none	Regional	native	Occasional
<i>Centaurea iberica</i>	Iberian knapweed	biennial	9	NE	none	Transcontinental	alien	Rare
<i>Centaurea virgata</i> subsp. <i>squarrosa</i>	Squarrose knapweed	perennial	9	NE	none	Regional	native	Occasional

<i>Ceratocephala orthoceras</i>	Curvseed butterwort	annual	9	NE	none	Transcontinental	native	Frequent
<i>Cichorium intybus</i>	Chicory	perennial	9	LC	none	Transcontinental	alien	Occasional
<i>Cirsium vulgare</i>	Black Thistle, Common Thistle	biennial	9	NE	none	Transcontinental	native	Rare
<i>Convolvulus arvensis</i>	Bindweed	Perennial, liana	9	NE	none	Transcontinental	alien	Frequent
<i>Descurainia sophia</i>	Flaxweed Tansymustard, Flixweed	annual	9	NE	none	Transcontinental	native	Occasional
<i>Echium biebersteinii</i>		biennial	9	NE	none	Regional	native	Rare
<i>Erodium cicutarium</i>	Common Storks Bill	annual	9	NE	none	Transcontinental	native	Frequent
<i>Eryngium caeruleum</i>	Sea Holly	biennial	9	NE	none	Regional	native	Rare
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	9	NE	none	Transcontinental	native	Frequent
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	9	LC	none	Regional	native	Abundant
<i>Lamium amplexicaule</i>	Common Henbit	annual	9	NE	none	Transcontinental	native	Occasional
<i>Malus domestica</i>	Apple	tree	9	NE	none	Transcontinental	introduced, planted	Dominant
<i>Malva neglecta</i>	Buttonweed, Dwarf Mallow	perennial	9	LC	none	Transcontinental	alien	Occasional
<i>Onopordum leptolepis</i>		biennial	9	NE	none	Regional	native	Occasional
<i>Papaver pavoninum</i>		annual	9	NE	none	Regional	native	Occasional
<i>Plantago lanceolata</i>	Ribwort Plantain	perennial	9	LC	none	Transcontinental	native	Frequent
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	9	NE	none	Transcontinental	native	Frequent
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	Persian rose	subshrub	9	NE	none	Regional	native	Occasional

<i>Sisymbrium altissimum</i>	Jim Hill Mustard	annual	9	NE	none	Transcontinental	alien	Occasional
<i>Sophora pachycarpa</i>		perennial	9	NE	none	Regional	native	Rare
<i>Xanthium spinosum</i>	Bathurst burr	annual	9	NE	none	Transcontinental	alien	Rare
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	10	NE	none	Regional	native	Frequent
<i>Alyssum desertorum</i>	Desert madwort	annual	10	NE	none	Regional	native	Occasional
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	10	LC	none	Regional	native	Common
<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	10	NE	none	Transcontinental	native	Occasional
<i>Cousinia resinosa</i>		perennial	10	NE	none	Regional	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	10	NE	none	Transcontinental	native	Frequent
<i>Erodium cicutarium</i>	Common Storks Bill	annual	10	NE	none	Transcontinental	native	Occasional
<i>Gagea graminifolia</i>		perennial	10	NE	none	Regional	native	Occasional
<i>Gagea olgae</i>		perennial	10	NE	none	Regional	native	Frequent
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	10	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	10	LC	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	10	NE	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	10	NE	none	Regional	native	Frequent
<i>Peganum harmala</i>	African rue, Harmel	perennial	10	NE	none	Regional	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	10	NE	none	Transcontinental	native	Common
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	Persian rose	subshrub	10	NE	none	Regional	native	Occasional
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	11	NE	none	Regional	native	Frequent

<i>Alyssum desertorum</i>	Desert madwort	annual	11	NE	none	Regional	native	Occasional
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	11	LC	none	Regional	native	Abundant
<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	11	NE	none	Transcontinental	native	Occasional
<i>Colchicum robustum</i> (<i>Merendera robusta</i>)		perennial	11	NE	none	Regional	native	Occasional
<i>Cousinia resinosa</i>		perennial	11	NE	none	Regional	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	11	NE	none	Transcontinental	native	Frequent
<i>Erodium cicutarium</i>	Common Storks Bill	annual	11	NE	none	Transcontinental	native	Occasional
<i>Gagea graminifolia</i>		perennial	11	NE	none	Regional	native	Occasional
<i>Gagea olgae</i>		perennial	11	NE	none	Regional	native	Common
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	11	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	11	LC	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	11	NE	none	Regional	native	Occasional
<i>Koelpinia linearis</i>		annual	11	NE	none	Regional	native	Rare
<i>Leptaleum filifolium</i>		annual	11	NE	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	11	NE	none	Regional	native	Frequent
<i>Peganum harmala</i>	African rue, Harmel	perennial	11	NE	none	Regional	native	Rare
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	11	NE	none	Transcontinental	native	Abundant
<i>Ranunculus sewerzowii</i>		perennial	11	NE	none	Regional	native	Occasional
<i>Strigosella brevipes</i>		annual	11	NE	none	Regional	native	Rare
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	12	NE	none	Regional	native	Occasional
<i>Alyssum desertorum</i>	Desert madwort	annual	12	NE	none	Regional	native	Occasional

<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	12	LC	none	Regional	native	Abundant
<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	12	NE	none	Transcontinental	native	Occasional
<i>Colchicum robustum</i> (<i>Merendera robusta</i>)		perennial	12	NE	none	Regional	native	Frequent
<i>Cousinia resinosa</i>		perennial	12	NE	none	Regional	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	12	NE	none	Transcontinental	native	Common
<i>Erodium cicutarium</i>	Common Storks Bill	annual	12	NE	none	Transcontinental	native	Occasional
<i>Gagea graminifolia</i>		perennial	12	NE	none	Regional	native	Rare
<i>Gagea olgae</i>		perennial	12	NE	none	Regional	native	Frequent
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	12	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	12	LC	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	12	NE	none	Regional	native	Occasional
<i>Koelpinia linearis</i>		annual	12	NE	none	Regional	native	Occasional
<i>Leptaleum filifolium</i>		annual	12	NE	none	Regional	native	Frequent
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	12	NE	none	Regional	native	Frequent
<i>Peganum harmala</i>	African rue, Harmel	perennial	12	NE	none	Regional	native	Rare
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	12	NE	none	Transcontinental	native	Abundant
<i>Ranunculus sewerzowii</i>		perennial	12	NE	none	Regional	native	Frequent
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	13	NE	none	Regional	native	Frequent
<i>Alyssum desertorum</i>	Desert madwort	annual	13	NE	none	Regional	native	Occasional
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	13	LC	none	Regional	native	Abundant

<i>Ceratocephala orthoceras</i>	Curvseed butterwort	annual	13	NE	none	Transcontinental	native	Occasional
<i>Colchicum robustum</i> (<i>Merendera robusta</i>)		perennial	13	NE	none	Regional	native	Occasional
<i>Cousinia resinosa</i>		perennial	13	NE	none	Regional	native	Rare
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	13	NE	none	Transcontinental	native	Occasional
<i>Erodium cicutarium</i>	Common Storks Bill	annual	13	NE	none	Transcontinental	native	Occasional
<i>Gagea graminifolia</i>		perennial	13	NE	none	Regional	native	Occasional
<i>Gagea olgae</i>		perennial	13	NE	none	Regional	native	Common
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	13	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	13	LC	none	Regional	native	Frequent
<i>Ixiolirion tataricum</i>		perennial	13	NE	none	Regional	native	Occasional
<i>Koelpinia linearis</i>		annual	13	NE	none	Regional	native	Occasional
<i>Leptaleum filifolium</i>		annual	13	NE	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	13	NE	none	Regional	native	Occasional
<i>Peganum harmala</i>	African rue, Harmel	perennial	13	NE	none	Regional	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	13	NE	none	Transcontinental	native	Abundant
<i>Ranunculus sewerzowii</i>		perennial	13	NE	none	Regional	native	Occasional
<i>Strigosella brevipes</i>		annual	13	NE	none	Regional	native	Occasional
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	14	NE	none	Regional	native	Frequent
<i>Alyssum desertorum</i>	Desert madwort	annual	14	NE	none	Regional	native	Frequent
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	14	LC	none	Regional	native	Occasional

<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	14	NE	none	Transcontinental	native	Frequent
<i>Cousinia resinosa</i>		perennial	14	NE	none	Regional	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	14	NE	none	Transcontinental	native	Occasional
<i>Erodium cicutarium</i>	Common Storks Bill	annual	14	NE	none	Transcontinental	native	Occasional
<i>Gagea olgae</i>		perennial	14	NE	none	Regional	native	Occasional
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	14	NE	none	Transcontinental	native	Frequent
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	14	LC	none	Regional	native	Occasional
<i>Hypocoum pendulum</i> (<i>Hypocoum parviflorum</i>)		annual	14	NE	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	14	NE	none	Regional	native	Occasional
<i>Leptaleum filifolium</i>		annual	14	NE	none	Regional	native	Frequent
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	14	NE	none	Regional	native	Occasional
<i>Papaver pavoninum</i>		annual	14	NE	none	Regional	native	Occasional
<i>Peganum harmala</i>	African rue, Harmel	perennial	14	NE	none	Regional	native	Rare
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	14	NE	none	Transcontinental	native	Frequent
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	15	NE	none	Regional	native	Frequent
<i>Alyssum desertorum</i>	Desert madwort	annual	15	NE	none	Regional	native	Occasional
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	15	LC	none	Regional	native	Frequent
<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	15	NE	none	Transcontinental	native	Occasional
<i>Cousinia resinosa</i>		perennial	15	NE	none	Regional	native	Rare

<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	15	NE	none	Transcontinental	native	Occasional
<i>Erodium cicutarium</i>	Common Storks Bill	annual	15	NE	none	Transcontinental	native	Occasional
<i>Eruca sativa</i>	Rocket	annual	15	NE	none	Transcontinental	alien	Occasional
<i>Gagea graminifolia</i>		perennial	15	NE	none	Regional	native	Occasional
<i>Gagea olgae</i>		perennial	15	NE	none	Regional	native	Occasional
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	15	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	15	LC	none	Regional	native	Occasional
<i>Hypecoum pendulum</i> (<i>Hypecoum parviflorum</i>)		annual	15	NE	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	15	NE	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	15	NE	none	Regional	native	Occasional
<i>Papaver pavoninum</i>		annual	15	NE	none	Regional	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	15	NE	none	Transcontinental	native	Abundant
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	Persian rose	subshrub	15	NE	none	Regional	native	Occasional
<i>Strigosella africana</i>	African mustard	annual	15	NE	none	Regional	alien	Occasional
<i>Triticum aestivum</i> (crops)	Bread Wheat	Annual	15	NE	none	Transcontinental	planted (agricultural crop)	Dominant
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	16	NE	none	Regional	native	Occasional
<i>Alyssum desertorum</i>	Desert madwort	annual	16	NE	none	Regional	native	Occasional
<i>Astragalus filicaulis</i>		annual	16	NE	none	Regional	native	Occasional
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	16	LC	none	Regional	native	Abundant

<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	16	NE	none	Transcontinental	native	Occasional
<i>Cousinia resinosa</i>		perennial	16	NE	none	Regional	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	16	NE	none	Transcontinental	native	Occasional
<i>Erodium cicutarium</i>	Common Storks Bill	annual	16	NE	none	Transcontinental	native	Occasional
<i>Gagea graminifolia</i>		perennial	16	NE	none	Regional	native	Occasional
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)		perennial	16	NE	none	Regional	native	Occasional
<i>Gagea olgae</i>		perennial	16	NE	none	Regional	native	Frequent
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	16	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	16	LC	none	Regional	native	Frequent
<i>Hypocoum pendulum</i> (<i>Hypocoum parviflorum</i>)		annual	16	NE	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	16	NE	none	Regional	native	Occasional
<i>Koelpinia linearis</i>		annual	16	NE	none	Regional	native	Rare
<i>Leptaleum filifolium</i>		annual	16	NE	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	16	NE	none	Regional	native	Frequent
<i>Meniocus linifolius</i>		annual	16	NE	none	Regional	native	Occasional
<i>Peganum harmala</i>	African rue, Harmel	perennial	16	NE	none	Regional	native	Frequent
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	16	NE	none	Transcontinental	native	Abundant
<i>Ranunculus sewerzowii</i>		perennial	16	NE	none	Regional	native	Occasional
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	17	NE	none	Regional	native	Common
<i>Alyssum desertorum</i>	Desert madwort	annual	17	NE	none	Regional	native	Occasional
<i>Astragalus filicaulis</i>		annual	17	NE	none	Regional	native	Occasional

<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	17	LC	none	Regional	native	Abundant
<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	17	NE	none	Transcontinental	native	Occasional
<i>Cousinia resinosa</i>		perennial	17	NE	none	Regional	native	Rare
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	17	NE	none	Transcontinental	native	Occasional
<i>Erodium cicutarium</i>	Common Storks Bill	annual	17	NE	none	Transcontinental	native	Occasional
<i>Gagea graminifolia</i>		perennial	17	NE	none	Regional	native	Rare
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)		perennial	17	NE	none	Regional	native	Occasional
<i>Gagea olgae</i>		perennial	17	NE	none	Regional	native	Occasional
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	17	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	17	LC	none	Regional	native	Frequent
<i>Hypocoum pendulum</i> (<i>Hypocoum parviflorum</i>)		annual	17	NE	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	17	NE	none	Regional	native	Occasional
<i>Koelpinia linearis</i>		annual	17	NE	none	Regional	native	Rare
<i>Leptaleum filifolium</i>		annual	17	NE	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	17	NE	none	Regional	native	Occasional
<i>Meniocus linifolius</i>		annual	17	NE	none	Transcontinental	native	Occasional
<i>Papaver pavoninum</i>		annual	17	NE	none	Regional	native	Occasional
<i>Peganum harmala</i>	African rue, Harmel	perennial	17	NE	none	Regional	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	17	NE	none	Transcontinental	native	Abundant
<i>Ranunculus sewerzowii</i>		perennial	17	NE	none	Regional	native	Occasional

<i>Achillea wilhelmsii</i> (<i>Achillea kermanica</i>)	Yarrow	Perennial	18	NE	none	Regional	native	Occasional
<i>Alhagi pseudalhagi</i>	Camel Thorn	Perennial	18	NE	none	Regional	native	Occasional
<i>Allium griffithii</i>		Perennial	18	NE	none	Regional	native	Rare
<i>Alyssum desertorum</i>	Desert madwort	Annual	18	NE	none	Regional	native	Occasional
<i>Arenaria leptoclados</i>	Thyme-Leaved Sandwort	Annual	18	NE	none	Regional	native	Occasional
<i>Astragalus filicaulis</i>		Annual	18	NE	none	Regional	native	Occasional
<i>Bromus tectorum</i>	Wall Brome	Annual	18	NE	none	Transcontinental	native	Frequent
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	18	LC	none	Regional	native	Abundant
<i>Cousinia resinosa</i>		perennial	18	NE	none	Regional	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	18	NE	none	Transcontinental	native	Frequent
<i>Erodium cicutarium</i>	Common Storks Bill	annual	18	NE	none	Transcontinental	native	Occasional
<i>Gagea graminifolia</i>		perennial	18	NE	none	Regional	native	Occasional
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)		perennial	18	NE	none	Regional	native	Occasional
<i>Gagea olgae</i>		perennial	18	NE	none	Regional	native	Frequent
<i>Haplophyllum versicolor</i>		perennial	18	NE	none	Regional	native	Rare
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	18	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	18	LC	none	Regional	native	Occasional
<i>Hypocoum pendulum</i> (<i>Hypocoum parviflorum</i>)		annual	18	NE	none	Regional	native	Rare
<i>Ixiolirion tataricum</i>		perennial	18	NE	none	Regional	native	Occasional

<i>Koelpinia linearis</i>		annual	18	NE	none	Regional	native	Occasional
<i>Leptaleum filifolium</i>		annual	18	NE	none	Regional	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	18	NE	none	Regional	native	Frequent
<i>Meniocus linifolius</i>		annual	18	NE	none	Transcontinental	native	Occasional
<i>Papaver pavoninum</i>		annual	18	NE	none	Regional	native	Occasional
<i>Peganum harmala</i>	African rue, Harmel	perennial	18	NE	none	Regional	native	Rare
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	18	NE	none	Transcontinental	native	Abundant
<i>Phlomis thapsoides</i>		perennial	18	NE	none	Regional	native	Frequent
<i>Phlomoideis labiosa</i>		perennial	18	NE	none	Regional	native	Occasional
<i>Ranunculus sewerzowii</i>		perennial	18	NE	none	Regional	native	Occasional
<i>Taraxacum monochlamydeum</i>		perennial	18	NE	none	Regional	native	Occasional
<i>Achillea wilhelmsii</i> (<i>Achillea kermanica</i>)	Yarrow	Perennial	19	NE	none	Regional	native	Occasional
<i>Alhagi pseudalhagi</i>	Camel Thorn	Perennial	19	NE	none	Regional	native	Frequent
<i>Allium griffithii</i>		Perennial	19	NE	none	Regional	native	Rare
<i>Alyssum desertorum</i>	Desert madwort	Annual	19	NE	none	Regional	native	Occasional
<i>Arenaria leptoclados</i>	Thyme-Leaved Sandwort	Annual	19	NE	none	Regional	native	Occasional
<i>Astragalus filicaulis</i>		Annual	19	NE	none	Regional	native	Occasional
<i>Bromus tectorum</i>	Wall Brome	Annual	19	NE	none	Transcontinental	native	Frequent
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	annual	19	LC	none	Transcontinental	alien	Frequent
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	19	LC	none	Regional	native	Frequent
<i>Cousinia microcarpa</i>		biennial	19	NE	none	Regional	native	Occasional
<i>Cousinia resinosa</i>		perennial	19	NE	none	Regional	native	Occasional

<i>Cryptospora falcata</i> (<i>Cryptospora omissa</i>)		annual	19	NE	none	Regional	native	Occasional
<i>Descurainia sophia</i>	Flaxweed Tansymustard, Flixweed	annual	19	NE	none	Transcontinental	native	Occasional
<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	19	NE	none	Transcontinental	native	Occasional
<i>Erodium cicutarium</i>	Common Storks Bill	annual	19	NE	none	Transcontinental	native	Frequent
<i>Eryngium caeruleum</i>	Sea Holly	biennial	19	NE	none	Regional	native	Occasional
<i>Gagea graminifolia</i>		perennial	19	NE	none	Regional	native	Occasional
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)		perennial	19	NE	none	Regional	native	Frequent
<i>Gagea olgae</i>		perennial	19	NE	none	Regional	native	Frequent
<i>Haplophyllum versicolor</i>		perennial	19	NE	none	Regional	native	Occasional
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	19	NE	none	Transcontinental	native	Frequent
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	19	LC	none	Regional	native	Common
<i>Hypocoum pendulum</i> (<i>Hypocoum parviflorum</i>)		annual	19	NE	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	19	NE	none	Regional	native	Occasional
<i>Koelpinia linearis</i>		annual	19	NE	none	Regional	native	Rare
<i>Lamium amplexicaule</i>	Common Henbit	annual	19	NE	none	Transcontinental	native	Occasional
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	19	NE	none	Regional	native	Frequent
<i>Meniocus linifolius</i>		annual	19	NE	none	Transcontinental	native	Occasional
<i>Papaver pavoninum</i>		annual	19	NE	none	Regional	native	Occasional

<i>Parentucellia flaviflora</i>	Yellow Broadleaf Glandweed	annual	19	NE	none	Regional	native	Occasional
<i>Peganum harmala</i>	African rue, Harmel	perennial	19	NE	none	Regional	native	Occasional
<i>Phragmites australis</i>	Common Reed	perennial	19	LC	none	Transcontinental	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	19	NE	none	Transcontinental	native	Abundant
<i>Phlomis thapsoides</i>		perennial	19	NE	none	Regional	native	Rare
<i>Phlomooides labiosa</i>		perennial	19	NE	none	Regional	native	Occasional
<i>Ranunculus sewerzowii</i>		perennial	19	NE	none	Regional	native	Frequent
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	Persian rose	subshrub	19	NE	none	Regional	native	Occasional
<i>Sisymbrium altissimum</i>	Jim Hill Mustard	annual	19	NE	none	Transcontinental	alien	Occasional
<i>Strigosella africana</i>	African mustard	annual	19	NE	none	Regional	alien	Occasional
<i>Taraxacum monochlamydeum</i>		perennial	19	NE	none	Regional	native	Frequent
<i>Trigonella grandiflora</i>		annual	19	LC	none	Regional	native	Occasional
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	20	NE	none	Regional	native	Occasional
<i>Alyssum desertorum</i>	Desert madwort	Annual	20	NE	none	Regional	native	Occasional
<i>Bromus tectorum</i>	Wall Brome	annual	20	NE	none	Transcontinental	native	Occasional
<i>Capparis spinosa</i>	Caper	perennial	20	LC	none	Regional	native	Rare
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	annual	20	LC	none	Transcontinental	alien	Frequent
<i>Carthamus oxyacanthus</i>	Wild safflower, Jeweled distaff thistle	annual	20	NE	none	Regional	native	Rare
<i>Centaurea iberica</i>	Iberian knapweed	biennial	20	NE	none	Transcontinental	alien	Occasional
<i>Centaurea virgata</i> subsp. <i>squarrosa</i>	Squarrose knapweed	perennial	20	NE	none	Regional	native	Occasional
<i>Cichorium intybus</i>	Chicory	perennial	20	LC	none	Transcontinental	alien	Occasional

<i>Convolvulus arvensis</i>	Bindweed	Perennial, liana	20	NE	none	Transcontinental	alien	Occasional
<i>Descurainia sophia</i>	Flaxweed Tansymustard, Flixweed	annual	20	NE	none	Transcontinental	native	Occasional
<i>Echium biebersteinii</i>		biennial	20	NE	none	Regional	native	Rare
<i>Erodium cicutarium</i>	Common Storks Bill	annual	20	NE	none	Transcontinental	native	Frequent
<i>Gleditsia caspica</i>	Caspian Locust	tree	20	EN	none	Regional	introduced, planted	Rare
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum</i> <i>leporinum</i>)	Wall Barley, Falce Barley	annual	20	LC	none	Regional	native	Frequent
<i>Lamium amplexicaule</i>	Common Henbit	annual	20	NE	none	Transcontinental	native	Occasional
<i>Malus domestica</i>	Apple	tree	20	NE	none	Transcontinental	introduced, planted	Dominant
<i>Malva neglecta</i>	Buttonweed, Dwarf Mallow	perennial	20	LC	none	Transcontinental	alien	Occasional
<i>Onopordum leptolepis</i>		biennial	20	NE	none	Regional	native	Occasional
<i>Papaver pavoninum</i>		annual	20	NE	none	Regional	native	Occasional
<i>Plantago lanceolata</i>	Ribwort Plantain	perennial	20	LC	none	Transcontinental	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	20	NE	none	Transcontinental	native	Abundant
<i>Rhaponticum repens</i> (<i>Acroptilon repens</i>)	Russian Knapweed	perennial	20	NE	none	Transcontinental	native, quarantine weed	Occasional
<i>Rosa persica</i> (<i>Hulthemia</i> <i>persica</i>)	Persian rose	subshrub	20	NE	none	Regional	native	Frequent
<i>Sisymbrium altissimum</i>	Jim Hill Mustard	annual	20	NE	none	Transcontinental	alien	Occasional

<i>Sophora pachycarpa</i>		perennial	20	NE	none	Regional	native	Rare
<i>Strigosella africana</i>	African mustard	annual	20	NE	none	Regional	alien	Occasional
<i>Ulmus pumila</i>	Siberian Elm	tree	20	LC	none	Regional	native, planted	Rare
<i>Xanthium spinosum</i>	Bathurst burr	annual	20	NE	none	Transcontinental	alien	Rare
<i>Achillea arabica</i> (<i>Achillea biebersteinii</i>)	Yarrow	perennial	21	NE	none	Regional	native	Occasional
<i>Alhagi pseudalhagi</i>	Camel Thorn	perennial	21	NE	none	Regional	native	Frequent
<i>Alyssum desertorum</i>	Desert madwort	annual	21	NE	none	Regional	native	Occasional
<i>Astragalus filicaulis</i>		annual	21	NE	none	Regional	native	Occasional
<i>Bromus tectorum</i>	Wall Brome	Annual	21	NE	none	Transcontinental	native	Frequent
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	annual	21	LC	none	Transcontinental	alien	Frequent
<i>Carex pachystylis</i>	Thick-stem sedge, desert sedge	perennial	21	LC	none	Regional	native	Abundant
<i>Ceratocephala orthoceras</i>	Curveseed butterwort	annual	21	NE	none	Transcontinental	native	Occasional
<i>Cichorium intybus</i>	Chicory	perennial	21	LC	none	Transcontinental	alien	Occasional
<i>Convolvulus arvensis</i>	Bindweed	Perennial, liana	21	NE	none	Transcontinental	alien	Occasional
<i>Cousinia resinosa</i>		perennial	21	NE	none	Regional	native	Rare
<i>Cryptospora falcata</i> (<i>Cryptospora omissa</i>)		annual	21	NE	none	Regional	native	Occasional
<i>Descurainia sophia</i>	Flaxweed Tansymustard, Flixweed	annual	21	NE	none	Transcontinental	native	Frequent

<i>Draba verna</i> (<i>Erophila verna</i>)	Spring Draba	annual	21	NE	none	Transcontinental	native	Occasional
<i>Erodium cicutarium</i>	Common Storks Bill	annual	21	NE	none	Transcontinental	native	Frequent
<i>Eruca sativa</i>	Rocket	annual	21	NE	none	Transcontinental	alien	Occasional
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)		perennial	21	NE	none	Regional	native	Frequent
<i>Goldbachia torulosa</i>		annual	21	NE	none	Regional	native	Occasional
<i>Holosteum umbellatum</i>	Jagged Chickweed	annual	21	NE	none	Transcontinental	native	Occasional
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	Wall Barley, Falce Barley	annual	21	LC	none	Regional	native	Frequent
<i>Hypocoum pendulum</i> (<i>Hypocoum parviflorum</i>)		annual	21	NE	none	Regional	native	Occasional
<i>Ixiolirion tataricum</i>		perennial	21	NE	none	Regional	native	Occasional
<i>Lepidium draba</i> (<i>Cardaria draba</i>)	Heart-Pod Hoary Cress	perennial	21	NE	none	Transcontinental	native	Frequent
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)		annual	21	NE	none	Regional	native	Occasional
<i>Nonea caspica</i>		annual	21	NE	none	Regional	native	Occasional
<i>Papaver pavoninum</i>		annual	21	NE	none	Regional	native	Occasional
<i>Phlomis thapsoides</i>		perennial	21	NE	none	Regional	native	Occasional
<i>Poa bulbosa</i>	Bulbous Bluegrass	perennial	21	NE	none	Transcontinental	native	Abundant
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	Persian rose	subshrub	21	NE	none	Regional	native	Frequent
<i>Strigosella africana</i>	African mustard	annual	21	NE	none	Regional	alien	Occasional
<i>Trigonella grandiflora</i>		annual	21	LC	none	Regional	native	Occasional

Triticum aestivum	Bread Wheat	Annual	21	NE	none	Transcontinental	planted (agricultural crop)	Dominant
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Annex E: The list of sample plots

Table 4: Check-list of plants recorded on sample plot 01-2024 (39.573505° N, 66.740345° E), 500 MW BESS, Nurobod District of Samarkand Region, fallow land

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	R	+	dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Arenaria leptoclados	annual	5-7	R	+	vegetation
Carex pachystylis	perennial	7-10	F	2	flowering
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Cousinia resinosa	perennial	10-12	R	+	vegetation
Erodium cicutarium	annual	10-12	F	2	flowering
Gagea olgae	perennial	5-7	C	1	flowering
Holosteum umbellatum	annual	7-10	O	+	flowering
Medicago monantha (Trigonella geminiflora)	annual	5-7	O	+	flowering
Minuartia meyeri	annual	5-7	R	+	vegetation
Peganum harmala	perennial	7-10	R	+	vegetation
Poa bulbosa	perennial	15-20	C	2	fruiting
Sedum aetnense (Sedum tetramerum)	annual	1-2	F	1	flowering

Table 5: Check-list of plants recorded on sample plot 02-2024 (39.575733° N, 66.745086° E), Nurobod substation, Nurobod District of Samarkand Region, fallow land

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	R	+	dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Aphanopleura capillifolia	annual	5-7	O	+	vegetation
Arenaria leptoclados	annual	5-7	O	+	vegetation
Carex pachystylis	perennial	7-10	F	2	Flowering, fruiting
Capparis spinosa	perennial	20-30	R	+	dried
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Cousinia resinosa	perennial	10-12	R	+	vegetation
Erodium cicutarium	annual	10-12	F	2	flowering
Gagea olgae	perennial	5-7	C	1	flowering
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	7-10	O	+	vegetation
Medicago monantha (Trigonella geminiflora)	annual	5-7	O	+	flowering
Minuartia meyeri	annual	5-7	R	+	dried
Peganum harmala	perennial	12-15	O	+	vegetation

Plantago lanceolata	perennial	5-10	O	+	vegetation
Poa bulbosa	perennial	15-20	C	2	fruiting
Sedum aetnense (Sedum tetramerum)	annual	1-2	F	1	flowering

Table 6: Check-list of plants recorded on sample plot 03-2024 (39.567669° N, 66.743024° E), 220 kV Overhead Transmission Line, Nurobod District of Samarkand Region, to the south of Nurobod substation site, fallow land

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	F	2	dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Aphanopleura capillifolia	annual	5-7	O	+	vegetation
Arenaria leptoclados	annual	5-7	O	+	vegetation
Carex pachystylis	perennial	7-10	F	1	Flowering, fruiting
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Cousinia resinosa	perennial	10-12	O	+	vegetation
Draba verna (Erophila verna)	annual	5-7	O	+	Flowering, fruiting
Erodium cicutarium	annual	10-12	F	1	flowering
Gagea olgae	perennial	5-7	F	1	flowering
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	7-10	O	+	vegetation
Ixiolirion tataricum	perennial	10-15	O	+	vegetation
Medicago monantha (Trigonella geminiflora)	annual	5-7	O	+	flowering
Peganum harmala	perennial	12-15	R	+	vegetation
Poa bulbosa	perennial	15-20	C	2	fruiting
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation
Sedum aetnense (Sedum tetramerum)	annual	1-2	O	+	flowering
Taraxacum monochlamydeum	perennial	10-12	O	+	flowering

Table 7: Check-list of plants recorded on sample plot 04-2024 (39.563586° N, 66.723789° E), Access Road, Nurobod District of Samarkand Region, 1.5 km to the northwest of the village Sazagan, strongly degraded dry grassland

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	O	1	dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Aphanopleura capillifolia	annual	5-7	O	+	vegetation
Arenaria leptoclados	annual	5-7	O	+	vegetation
Carex pachystylis	perennial	7-10	C	2	Flowering, fruiting
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting

Cousinia resinosa	perennial	10-12	O	+	vegetation
Draba verna (Erophila verna)	annual	5-7	F	+	Flowering, fruiting
Erodium cicutarium	annual	10-12	O	+	flowering
Gagea graminifolia	perennial	4-5	O	+	flowering
Gagea olgae	perennial	5-7	C	1	flowering
Gentiana olivieri	perennial	5-7	O	+	vegetation
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	7-10	R	+	vegetation
Rosa persica (Hulthemia persica)	subshrub	20-30	O	+	vegetation
Ixiolirion tataricum	perennial	10-15	O	+	vegetation
Medicago monantha (Trigonella geminiflora)	annual	5-7	F	+	flowering
Poa bulbosa	perennial	15-20	A	2	fruiting
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation
Taraxacum monochlamydeum	perennial	10-12	O	+	flowering

Table 8: Check-list of plants recorded on sample plot 05-2024 (39.547369° N, 66.6845° E), Sazagan 100 MW PV site, Nurobod District of Samarkand Region, 2.5 km to the west of the village Sazagan, fallow land

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Achillea arabica (Achillea biebersteinii)	perennial	7-10	O	+	vegetation
Alhagi pseudalhagi	perennial	20-30	O	1	Dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Arenaria leptoclados	annual	10-15	O	+	Flowering
Bromus tectorum	annual	20-25	F	+	vegetation
Capparis spinosa	perennial	15-20	R	+	vegetation
Centaurea benedicta (Cnicus benedictus)	annual	10-15	R	+	Flowering
Centaurea iberica	biennial	10-15	O	+	vegetation
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Cichorium intybus	perennial	10-15	O	+	vegetation
Convolvulus arvensis	Perennial, liana	5-7	O	+	vegetation
Cousinia microcarpa	biennial	10-15	O	+	vegetation
Cousinia resinosa	perennial	10-15	F	1	vegetation
Draba verna (Erophila verna)	annual	5-7	O	+	Flowering, fruiting
Erodium cicutarium	annual	10-12	O	+	Flowering
Gagea olgae	perennial	5-7	O	+	Flowering
Haplophyllum versicolor	perennial	5-7	O	+	vegetation
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	10-12	O	+	vegetation
Rosa persica (Hulthemia persica)	subshrub	15-20	F	1	vegetation

<i>Ixiolirion tataricum</i>	perennial	10-15	O	+	vegetation
<i>Koelpinia linearis</i>	annual	10-12	O	+	Flowering
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)	annual	5-7	O	+	Flowering
<i>Onopordum leptolepis</i>	biennial	50-70	O	+	vegetation
<i>Papaver pavoninum</i>	annual	20-25	O	+	Dried
<i>Peganum harmala</i>	perennial	20-30	R	+	vegetation
<i>Plantago lanceolata</i>	perennial	5-10	O	+	vegetation
<i>Poa bulbosa</i>	perennial	25-30	C	1	Fruiting
<i>Ranunculus sewerzowii</i>	perennial	5-7	O	+	vegetation
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	subshrub	30-40	O	+	vegetation
<i>Sisymbrium altissimum</i>	annual	20-30	O	+	Vegetation
<i>Sophora pachycarpa</i>	perennial	15-20	O	+	vegetation
<i>Strigosella africana</i>	annual	10-15	R	+	Flowering
<i>Taraxacum monochlamydeum</i>	perennial	10-12	R	+	flowering
<i>Turgenia latifolia</i>	annual	10-15	O	+	vegetation
<i>Xanthium spinosum</i>	annual	20-30	R	+	vegetation
<i>Ziziphora tenuior</i>	annual	5-7	O	+	vegetation

Table 9: Check-list of plants recorded on sample plot 06-2024 (39.550955° N, 66.688282° E), Nurobod District of Samarkand Region, Ettitepa Archeologic Heritage site, dry grassland

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
<i>Achillea arabica</i> (<i>Achillea biebersteinii</i>)	perennial	7-10	O	+	vegetation
<i>Alhagi pseudalhagi</i>	perennial	20-30	O	+	dried
<i>Allium drepanophyllum</i>	perennial	10-15	R	+	vegetation
<i>Alyssum desertorum</i>	annual	5-7	O	+	Flowering, fruiting
<i>Arenaria leptoclados</i>	annual	10-15	O	+	flowering
<i>Astragalus filicaulis</i>	annual	10-15	O	+	Flowering
<i>Bromus tectorum</i>	annual	10-12	F	+	Vegetation
<i>Capparis spinosa</i>	perennial	15-20	O	+	vegetation
<i>Carex pachystylis</i>	perennial	7-10	A	2	Flowering, fruiting
<i>Centaurea benedicta</i> (<i>Cnicus benedictus</i>)	annual	10-15	R	+	Flowering
<i>Centaurea iberica</i>	biennial	10-15	O	+	Vegetation
<i>Centaurea virgata</i> subsp. <i>squarrosa</i>	perennial	10-15	O	+	Vegetation
<i>Convolvulus arvensis</i>	Perennial, liana	5-10	O	+	Vegetation
<i>Corydalis sewerzowii</i>	perennial	10-15	O	+	Flowering
<i>Cousinia microcarpa</i>	biennial	10-15	O	+	Vegetation
<i>Cousinia resinosa</i>	perennial	20-25	O	+	Vegetation
<i>Crocus korolkowii</i>	perennial	10-12	O	+	Vegetation
<i>Draba verna</i> (<i>Erophila verna</i>)	annual	5-7	F	+	Flowering, fruiting
<i>Erodium cicutarium</i>	annual	10-12	O	+	Flowering
<i>Gagea chomutovae</i>	perennial	10-12	R	+	Flowering

Gagea graminifolia	perennial	4-5	O	+	flowering
Gagea olgae	perennial	5-7	F	+	Flowering
Haplophyllum versicolor	perennial	5-10	R	+	Vegetation
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	10-15	F	1	Vegetation
Rosa persica (Hulthemia persica)	subshrub	20-30	O	+	vegetation
Ixiolirion tataricum	perennial	10-15	O	+	vegetation
Koelpinia linearis	annual	10-15	O	+	flowering
Lamium amplexicaule	annual	10-15	O	+	flowering
Papaver pavoninum	annual	10-15	O	+	Budding
Peganum harmala	perennial	15-20	R	+	vegetation
Poa bulbosa	perennial	15-20	A	1	Flowering, fruiting
Phlomis thapsoides	perennial	15-20	O	+	vegetation
Phlomoides labiosa	perennial	15-20	F	1	vegetation
Plantago lanceolata	perennial	5-10	O	+	Vegetation
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation
Rhaponiticum repens (Acroptilon repens)	perennial	30-40	R	+	Vegetation
Sisymbrium altissimum	annual	30-40	F	+	Vegetation
Sophora pachycarpa	perennial	15-20	O	+	Vegetation
Strigosella africana	annual	10-15	R	+	Flowering
Taraxacum monochlamydeum	perennial	10-12	O	+	flowering
Turgenia latifolia	annual	15-20	R	+	Vegetation
Xanthium spinosum	annual	20-30	O	+	Vegetation
Ziziphora tenuior	annual	5-7	R	+	flowering

Table 10: Check-list of plants recorded on sample plot 07-2024 (39.580849° N, 66.754212° E), western part of OTHL Nurobod substation – Sogdiana, Nurobod District of Samarkand Region, to the east of Nurobod substation site, arable land, young apple garden

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	15-20	R	+	dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Aphanopleura capillifolia	annual	5-7	R	+	vegetation
Arenaria leptoclados	annual	5-7	R	+	vegetation
Capsella bursa-pastoris	annual	15-20	O	+	Flowering, fruiting
Carex pachystylis	perennial	7-10	O	+	dried
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Cousinia resinosa	perennial	10-12	R	+	vegetation
Erodium cicutarium	annual	10-12	O	+	flowering
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	7-10	R	+	vegetation
Ixiolirion tataricum	perennial	10-15	R	+	vegetation
Koelpinia linearis	annual	10-15	R	+	flowering
Lamium amplexicaule	annual	10-15	R	+	flowering

Medicago monantha (Trigonella geminiflora)	annual	5-7	O	+	flowering
Papaver pavoninum	annual	10-15	R	+	Budding
Peganum harmala	perennial	12-15	R	+	vegetation
Poa bulbosa	perennial	15-20	O	+	fruiting
Taraxacum mono-chlamydeum	perennial	10-12	O	+	flowering

Table 11: Check-list of plants recorded on sample plot 08-2024 (39.580547° N, 66.77518° E), OTHL Nurobod substation – Sogdiana, Nurobod District of Samarkand Region, a quarry in the dry bed of the river Tepakulsay and strongly degraded dry grassland on the left bank of the river

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	15-20	F	1	dried
Alyssum desertorum	annual	5-7	F	+	Flowering, fruiting
Arenaria leptoclados	annual	10-15	O	+	flowering
Bromus tectorum	annual	20-25	F	+	Vegetation
Capparis spinosa	perennial	15-20	R	+	Vegetation
Carex pachystylis	perennial	7-10	A	2	Flowering, fruiting
Centaurea iberica	biennial	10-15	R	+	Vegetation
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Cousinia resinosa	perennial	20-25	O	+	Vegetation
Draba verna (Erophila verna)	annual	5-7	C	1	Flowering, fruiting
Erodium cicutarium	annual	10-12	F	1	Flowering
Gagea olgae	perennial	5-7	F	+	Flowering
Haplophyllum versicolor	perennial	5-10	R	+	Vegetation
Holosteum umbellatum	annual	7-10	O	+	Flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	10-15	O	+	Vegetation
Ixiolirion tataricum	perennial	10-15	O	+	Vegetation
Koelpinia linearis	annual	10-15	R	+	Flowering
Malva neglecta	perennial	7-10	O	+	Vegetation
Papaver pavoninum	annual	10-15	R	+	Budding
Peganum harmala	perennial	15-20	R	+	vegetation
Poa bulbosa	perennial	15-20	A	1	Flowering, fruiting
Plantago lanceolata	perennial	5-10	O	+	Vegetation
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation
Sophora pachycarpa	perennial	15-20	O	+	Vegetation
Strigosella africana	annual	10-15	R	+	Flowering
Taraxacum mono-chlamydeum	perennial	10-12	O	+	flowering
Xanthium spinosum	annual	20-30	R	+	Vegetation

Table 12: Check-list of plants recorded on sample plot 09-2024 (39.57993° N, 66.85574° E), OTHL Nurobod substation – Sogdiana, Samarkand District of Samarkand Region, 1.5 km to the north of the village Mehrobod, apple garden

Species	Life form		Abundance	
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		Height, cm	DACFOR	Braun- Blanquet	Phenol. Stage
Alhagi pseudalhagi	perennial	10-15	O	+	vegetation
Artemisia serotina	perennial	15-20	R	+	vegetation
Bromus tectorum	annual	15-20	O	+	vegetation
Capsella bursa-pastoris	annual	20-30	O	+	Flowering, fruiting
Carduus arabicus	annual	15-20	O	+	budding
Carthamus oxyacanthus	annual	20-30	O	+	dried
Centaurea iberica	biennial	10-15	R	+	vegetation
Centaurea virgata subsp. squarrosa	perennial	10-15	O	+	vegetation
Ceratocephala orthoceras	annual	4-5	F	+	Flowering, fruiting
Cichorium intybus	perennial	10-15	O	+	vegetation
Cirsium vulgare	biennial	15-20	R	+	vegetation
Convolvulus arvensis	Perennial, liana	5-10	F	+	vegetation
Descurainia sophia	annual	20-30	O	+	Flowering, fruiting
Echium biebersteinii	biennial	30-40	R	+	dried
Erodium cicutarium	annual	10-12	F	1	flowering
Eryngium caeruleum	biennial	20-30	R	+	dried
Holosteum umbellatum	annual	10-15	F	1	Flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	15-20	A	2	vegetation
Lamium amplexicaule	annual	10-15	O	+	flowering
Malus domestica	tree	250-300	D	4	vegetation
Malva neglecta	perennial	7-10	O	+	Vegetation
Onopordum leptolepis	biennial	15-20	O	+	vegetation
Papaver pavoninum	annual	10-15	O	+	Budding
Plantago lanceolata	perennial	10-15	F	1	fruiting
Poa bulbosa	perennial	15-20	F	1	Flowering, fruiting
Rosa persica (Hulthemia persica)	subshrub	20-30	O	+	vegetation
Sisymbrium altissimum	annual	20-30	O	+	budding
Sophora pachycarpa	perennial	10-15	R	+	vegetation
Xanthium spinosum	annual	10-15	R	+	vegetation

Table 13: Check-list of plants recorded on sample plot 10-2024 (39.459027° N, 65.97769° E), northern part of 400 MW PV site, Nurobod District of Samarkand Region, fallow land, 1 km to the west of the village Koshkuduk, camel thorn-ephemeroid vegetation

Species	Life form	Height, cm	Abundance DACFOR	Braun- Blanquet	Phenol. Stage
Alhagi pseudalhagi	perennial	20-30	F	1	dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Carex pachystylis	perennial	7-10	C	2	Flowering, fruiting
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Cousinia resinosa	perennial	15-20	O	+	vegetation

Draba verna (Erophila verna)	annual	5-7	F	1	Flowering, fruiting
Erodium cicutarium	annual	10-12	O	+	flowering
Gagea graminifolia	perennial	4-5	O	+	flowering
Gagea olgae	perennial	5-7	F	+	flowering
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	7-10	O	+	vegetation
Rosa persica (Hulthemia persica)	subshrub	20-30	O	+	vegetation
Ixiolirion tataricum	perennial	10-15	O	+	vegetation
Medicago monantha (Trigonella geminiflora)	annual	5-7	F	+	Flowering
Peganum harmala	perennial	15-20	O	+	vegetation
Poa bulbosa	perennial	15-20	C	2	Fruiting

Table 14: Check-list of plants recorded on sample plot 11-2024 (39.453977° N, 65.965366° E), western part of 400 MW PV site, Nurobod District of Samarkand Region, 2.7 km to the west of the village Koshkuduk, clayey piedmont plain with native camel thorn-ephemeroid vegetation

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	F	1	dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Carex pachystylis	perennial	7-10	A	2	Flowering, fruiting
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Colchicum robustum (Merendera robusta)	perennial	12-15	O	+	flowering
Cousinia resinosa	perennial	15-20	O	+	vegetation
Draba verna (Erophila verna)	annual	5-7	F	1	Flowering, fruiting
Erodium cicutarium	annual	10-12	O	+	flowering
Gagea graminifolia	perennial	4-5	O	+	flowering
Gagea olgae	perennial	5-7	C	1	flowering
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	7-10	O	+	vegetation
Ixiolirion tataricum	perennial	10-15	O	+	Vegetation
Koelpinia linearis	annual	10-15	R	+	Flowering
Leptaleum filifolium	annual	5-7	O	+	Flowering
Medicago monantha (Trigonella geminiflora)	annual	5-7	F	+	Flowering
Peganum harmala	perennial	15-20	R	+	vegetation
Poa bulbosa	perennial	15-20	A	2	Fruiting
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation
Strigosella brevipes	annual	12-15	R	+	flowering

Table 15: Check-list of plants recorded on sample plot 12-2024 (39.43708° N, 65.966615° E), 500 MW PV site, Nurobod District of Samarkand Region, 2.5 km to the west of the village Koshkuduk, fallow land with ephemeroïd vegetation

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	O	+	dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Carex pachystylis	perennial	7-10	A	2	Flowering, fruiting
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Colchicum robustum (Merendera robusta)	perennial	12-15	F	1	flowering
Cousinia resinosa	perennial	15-20	O	+	vegetation
Draba verna (Erophila verna)	annual	5-7	C	1	Flowering, fruiting
Erodium cicutarium	annual	10-12	O	+	flowering
Gagea graminifolia	perennial	4-5	R	+	flowering
Gagea olgae	perennial	5-7	F	1	flowering
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	7-10	O	+	vegetation
Ixiolirion tataricum	perennial	10-15	O	+	Vegetation
Koelpinia linearis	annual	10-15	O	+	Flowering
Leptaleum filifolium	annual	5-7	F	+	Flowering
Medicago monantha (Trigonella geminiflora)	annual	5-7	F	+	Flowering
Peganum harmala	perennial	15-20	R	+	vegetation
Poa bulbosa	perennial	15-20	A	2	Fruiting
Ranunculus sewerzowii	perennial	5-7	F	+	vegetation

Table 16: Check-list of plants recorded on sample plot 13-2024 (39.420041° N, 65.94642° E), western part of 500 MW PV site, Nurobod District of Samarkand Region, 4.6 km to the southwest of the village Koshkuduk, clayey piedmont plain with native camel thorn-ephemeroïd vegetation

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	F	1	dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Carex pachystylis	perennial	7-10	A	2	Flowering, fruiting
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Colchicum robustum (Merendera robusta)	perennial	12-15	O	+	flowering
Cousinia resinosa	perennial	15-20	R	+	vegetation
Draba verna (Erophila verna)	annual	5-7	O	+	Flowering, fruiting
Erodium cicutarium	annual	10-12	O	+	flowering
Gagea graminifolia	perennial	4-5	O	+	flowering

Gagea olgae	perennial	5-7	C	1	flowering
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	7-10	F	1	vegetation
Ixiolirion tataricum	perennial	10-15	O	+	Vegetation
Koelpinia linearis	annual	10-15	O	+	Flowering
Leptaleum filifolium	annual	5-7	O	+	Flowering
Medicago monantha (Trigonella geminiflora)	annual	5-7	O	+	Flowering
Peganum harmala	perennial	15-20	O	1	vegetation
Poa bulbosa	perennial	15-20	A	2	Fruiting
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation
Strigosella brevipes	annual	12-15	O	+	flowering

Table 17: Check-list of plants recorded on sample plot 14-2024 (39.42679° N, 65.99937° E), access road to 400 MW PV site, Nurobod District of Samarkand Region, 0.3 km to the west of the village Koshkuduk, fallow land with sparse camel thorn-ephemeroid vegetation

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	F	1	dried
Alyssum desertorum	annual	5-7	F	+	Flowering, fruiting
Carex pachystylis	perennial	7-10	O	+	Flowering, fruiting
Ceratocephala orthoceras	annual	4-5	F	+	Flowering, fruiting
Cousinia resinosa	perennial	15-20	O	+	vegetation
Draba verna (Erophila verna)	annual	5-7	O	+	Flowering, fruiting
Erodium cicutarium	annual	10-12	O	+	flowering
Gagea olgae	perennial	5-7	O	+	flowering
Holosteum umbellatum	annual	7-10	F	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	7-10	O	+	vegetation
Hypocym pendulum (Hypocym parviflorum)	annual	10-12	O	+	flowering
Ixiolirion tataricum	perennial	10-15	O	+	vegetation
Leptaleum filifolium	annual	5-7	F	+	Flowering
Medicago monantha (Trigonella geminiflora)	annual	5-7	O	+	Flowering
Papaver pavoninum	annual	10-15	O	+	Budding
Peganum harmala	perennial	15-20	R	+	vegetation
Poa bulbosa	perennial	15-20	F	1	Fruiting

Table 18: Check-list of plants recorded on sample plot 15-2024 (39.418412° N, 66.71898° E), 70 km OTHL, Nurobod District of Samarkand Region, 2.5 km to the south of the village Koshkuduk, rainfed arable lands (wheat fields)

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	F	1	dried

<i>Alyssum desertorum</i>	annual	5-7	O	+	Flowering, fruiting
<i>Carex pachystylis</i>	perennial	7-10	F	1	Flowering, fruiting
<i>Ceratocephala orthoceras</i>	annual	4-5	O	+	Flowering, fruiting
<i>Cousinia resinosa</i>	perennial	15-20	R	+	vegetation
<i>Draba verna</i> (<i>Erophila verna</i>)	annual	5-7	O	+	Flowering, fruiting
<i>Erodium cicutarium</i>	annual	10-12	O	+	flowering
<i>Eruca sativa</i>	annual	10-15	O	+	flowering
<i>Gagea graminifolia</i>	perennial	4-5	O	+	flowering
<i>Gagea olgae</i>	perennial	5-7	O	+	flowering
<i>Holosteum umbellatum</i>	annual	7-10	O	+	flowering
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	7-10	O	+	vegetation
<i>Hypecoum pendulum</i> (<i>Hypecoum parviflorum</i>)	annual	10-12	O	+	flowering
<i>Ixiolirion tataricum</i>	perennial	10-15	O	+	vegetation
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)	annual	5-7	O	+	Flowering
<i>Papaver pavoninum</i>	annual	10-15	O	+	Budding
<i>Poa bulbosa</i>	perennial	15-20	A	2	Fruiting
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	subshrub	20-30	O	+	vegetation
<i>Strigosella africana</i>	annual	12-15	O	+	flowering
<i>Triticum aestivum</i> (crops)	Annual	15-20	D	3	vegetation

Table 19: Check-list of plants recorded on sample plot 16-2024 (39.447806° N, 65.966744° E), western part of 400 MW PV site, Nurobod District of Samarkand Region, 2.7 km to the west of the village Koshkuduk, clayey piedmont plain with native harmel-ephemeroid vegetation

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
<i>Alhagi pseudalhagi</i>	perennial	20-30	O	+	dried
<i>Alyssum desertorum</i>	annual	5-7	O	+	Flowering, fruiting
<i>Astragalus filicaulis</i>	annual	10-12	O	+	flowering
<i>Carex pachystylis</i>	perennial	10-12	A	2	fruiting
<i>Ceratocephala orthoceras</i>	annual	4-5	O	+	fruiting
<i>Cousinia resinosa</i>	perennial	15-20	O	+	vegetation
<i>Draba verna</i> (<i>Erophila verna</i>)	annual	5-7	O	+	fruiting
<i>Erodium cicutarium</i>	annual	10-12	O	+	Flowering, fruiting
<i>Gagea graminifolia</i>	perennial	4-5	O	+	fruiting
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)	perennial	10-12	O	+	flowering
<i>Gagea olgae</i>	perennial	5-7	F	+	fruiting
<i>Holosteum umbellatum</i>	annual	7-10	O	+	fruiting
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	15-20	F	1	vegetation
<i>Hypecoum pendulum</i> (<i>Hypecoum parviflorum</i>)	annual	12-15	O	+	Flowering, fruiting
<i>Ixiolirion tataricum</i>	perennial	10-15	O	+	Vegetation

Koelpinia linearis	annual	10-15	R	+	Flowering, fruiting
Leptaleum filifolium	annual	5-7	O	+	Flowering, fruiting
Medicago monantha (Trigonella geminiflora)	annual	5-7	F	+	Flowering, fruiting
Meniocus linifolius	annual	7-10	O	+	Flowering, fruiting
Peganum harmala	perennial	20-30	F	2	vegetation
Poa bulbosa	perennial	15-20	A	2	Fruiting
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation

Table 20: Check-list of plants recorded on sample plot 17-2024 (39.42562° N, 65.96582° E), eastern part of 500 MW PV site, Nurobod District of Samarkand Region, 3 km to the west of the village Koshkuduk, clayey piedmont plain with native camel thorn-ephemeroid vegetation

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	C	2	dried
Alyssum desertorum	annual	5-7	O	+	Flowering, fruiting
Astragalus filicaulis	annual	10-12	O	+	flowering
Carex pachystylis	perennial	10-12	A	2	fruiting
Ceratocephala orthoceras	annual	4-5	O	+	fruiting
Cousinia resinosa	perennial	15-20	R	+	vegetation
Draba verna (Erophila verna)	annual	5-7	O	+	fruiting
Erodium cicutarium	annual	10-12	O	+	Flowering, fruiting
Gagea graminifolia	perennial	4-5	R	+	fruiting
Gagea kunawurensis (Gagea stipitata)	perennial	10-12	O	+	flowering
Gagea olgae	perennial	5-7	O	+	fruiting
Holosteum umbellatum	annual	7-10	O	+	fruiting
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	15-20	F	1	vegetation
Hypecoum pendulum (Hypecoum parviflorum)	annual	12-15	O	+	Flowering, fruiting
Ixiolirion tataricum	perennial	10-15	O	+	Vegetation
Koelpinia linearis	annual	10-15	R	+	Flowering, fruiting
Leptaleum filifolium	annual	5-7	O	+	Flowering, fruiting
Medicago monantha (Trigonella geminiflora)	annual	5-7	O	+	Flowering, fruiting
Meniocus linifolius	annual	7-10	O	+	Flowering, fruiting
Papaver pavoninum	annual	10-15	O	+	flowering
Peganum harmala	perennial	20-30	O	+	vegetation
Poa bulbosa	perennial	15-20	A	2	Fruiting
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation

Table 21: Check-list of plants recorded on sample plot 18-2024 (39.436784° N, 66.174337° E), 70 km OTHL, Nurobod District of Samarkand Region, 3 km to the south of the village Urtabuz, dry foothills, forb-ephemeroid community

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
<i>Achillea kermanica</i>	Perennial	10-12	O	+	vegetation
<i>Alhagi pseudalhagi</i>	Perennial	10-15	O	+	Vegetation
<i>Allium griffithii</i>	Perennial	10-12	R	+	Flowering
<i>Alyssum desertorum</i>	Annual	5-7	O	+	fruiting
<i>Arenaria leptoclados</i>	Annual	10-15	O	+	flowering
<i>Astragalus filicaulis</i>	Annual	10-15	O	+	Flowering
<i>Bromus tectorum</i>	Annual	10-15	F	+	Vegetation
<i>Carex pachystylis</i>	perennial	7-10	A	2	fruiting
<i>Cousinia resinosa</i>	perennial	15-20	O	+	Vegetation
<i>Draba verna</i> (<i>Erophila verna</i>)	annual	5-7	F	+	fruiting
<i>Erodium cicutarium</i>	annual	10-12	O	+	Flowering, fruiting
<i>Gagea graminifolia</i>	perennial	4-5	O	+	fruiting
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)	perennial	10-12	O	+	flowering
<i>Gagea olgae</i>	perennial	5-7	F	+	fruiting
<i>Haplophyllum versicolor</i>	perennial	12-15	R	+	Vegetation
<i>Holosteum umbellatum</i>	annual	7-10	O	+	fruiting
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	15-20	O	+	Vegetation
<i>Hypocoum pendulum</i> (<i>Hypocoum parviflorum</i>)	annual	12-15	R	+	Flowering, fruiting
<i>Ixiolirion tataricum</i>	perennial	10-15	O	+	vegetation
<i>Koelpinia linearis</i>	annual	10-15	O	+	flowering
<i>Leptaleum filifolium</i>	annual	5-7	O	+	Flowering, fruiting
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)	annual	7-10	F	+	Flowering, fruiting
<i>Meniocus linifolius</i>	annual	7-10	O	+	Flowering, fruiting
<i>Papaver pavoninum</i>	annual	10-15	O	+	flowering
<i>Peganum harmala</i>	perennial	20-30	R	+	vegetation
<i>Poa bulbosa</i>	perennial	15-20	A	1	fruiting
<i>Phlomis thapsoides</i>	perennial	15-20	F	+	vegetation
<i>Phlomoides labiosa</i>	perennial	15-20	O	+	vegetation
<i>Ranunculus sewerzowii</i>	perennial	5-7	O	+	vegetation
<i>Taraxacum monochlamydeum</i>	perennial	10-12	O	+	fruiting

Table 22: Check-list of plants recorded on sample plot 19-2024 (39.50505° N, 66.3752° E), 70 km OTHL, Nurobod District of Samarkand Region, canal Eski Anhor, reeds and camel thorn-forb-grass community

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
<i>Achillea kermanica</i>	Perennial	10-12	O	+	vegetation
<i>Alhagi pseudalhagi</i>	Perennial	15-20	F	1	Vegetation
<i>Allium griffithii</i>	Perennial	10-12	R	+	Flowering
<i>Alyssum desertorum</i>	Annual	5-7	O	+	fruiting

Arenaria leptoclados	Annual	10-15	O	+	flowering
Astragalus filicaulis	Annual	10-15	O	+	Flowering
Bromus tectorum	Annual	15-20	F	1	Budding
Capsella bursa-pastoris	annual	20-25	F	1	Flowering, fruiting
Carex pachystylis	perennial	7-10	F	1	fruiting
Cousinia microcarpa	biennial	15-20	O	+	Vegetation
Cousinia resinosa	perennial	15-20	O	+	Vegetation
Cryptospora falcata (Cryptospora omissa)	annual	15-20	O	+	flowering
Descurainia sophia	annual	20-30	O	+	Flowering, fruiting
Draba verna (Erophila verna)	annual	5-7	O	+	fruiting
Erodium cicutarium	annual	12-15	F	1	Flowering, fruiting
Eryngium caeruleum	biennial	20-30	O	+	dried
Gagea graminifolia	perennial	4-5	O	+	fruiting
Gagea kunawurensis (Gagea stipitata)	perennial	10-12	F	+	flowering
Gagea olgae	perennial	5-7	F	+	fruiting
Haplophyllum versicolor	perennial	12-15	O	+	Vegetation
Holosteum umbellatum	annual	7-10	F	+	fruiting
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	15-20	C	2	Vegetation
Hypocoum pendulum (Hypocoum parviflorum)	annual	12-15	O	+	Flowering, fruiting
Ixiolirion tataricum	perennial	10-15	O	+	vegetation
Koelpinia linearis	annual	10-15	R	+	flowering
Lamium amplexicaule	annual	10-15	O	+	flowering
Medicago monantha (Trigonella geminiflora)	annual	10-15	F	+	Flowering, fruiting
Meniocus linifolius	annual	7-10	O	+	Flowering, fruiting
Papaver pavoninum	annual	10-15	O	+	flowering
Parentucellia flaviflora	annual	7-10	O	+	flowering
Peganum harmala	perennial	20-30	O	1	vegetation
Phragmites australis	perennial	100-150	O	+	dried
Poa bulbosa	perennial	15-20	A	1	fruiting
Phlomis thapsoides	perennial	15-20	R	+	vegetation
Phlomis labiosa	perennial	15-20	O	+	vegetation
Ranunculus sewerzowii	perennial	5-7	F	+	vegetation
Rosa persica (Hulthemia persica)	subshrub	20-30	O	+	vegetation
Sisymbrium altissimum	annual	20-30	O	+	Flowering, fruiting
Strigosella africana	annual	12-15	O	+	flowering
Taraxacum monochlamydeum	perennial	10-12	F	1	fruiting
Trigonella grandiflora	annual	15-20	O	+	Flowering, fruiting

Table 23: Check-list of plants recorded on sample plot 20-2024 (39.560228° N, 66.5832° E), 360 km OTHL, Pastdargom District of Samarkand Region, apple garden and boundary-strip 2 km to the south of village Khancharvak

Species	Life form	Height, cm	Abundance	
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			DACFOR	Braun-Blanquet	Phenol. Stage
Alhagi pseudalhagi	perennial	15-20	O	+	vegetation
Alyssum desertorum	Annual	5-7	O	+	fruiting
Bromus tectorum	annual	15-20	O	+	Flowering
Capparis spinosa	perennial	20-25	R	1	vegetation
Capsella bursa-pastoris	annual	20-25	F	1	Flowering, fruiting
Carthamus oxyacanthus	annual	30-40	R	+	dried
Centaurea iberica	biennial	15-20	O	+	vegetation
Centaurea virgata subsp. squarrosa	perennial	15-20	O	+	vegetation
Cichorium intybus	perennial	15-20	O	+	vegetation
Convolvulus arvensis	Perennial, liana	10-15	O	+	vegetation
Descurainia sophia	annual	20-30	O	+	Flowering, fruiting
Echium biebersteinii	biennial	25-30	R	+	dried
Erodium cicutarium	annual	12-15	F	1	Flowering, fruiting
Gleditsia caspica	tree	4-5 m	R	1	vegetation
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	Holosteum umbellatum	F	1	vegetation
Lamium amplexicaule	annual	10-15	O	+	flowering
Malus domestica	tree	200-250	D	4	vegetation
Malva neglecta	perennial	7-10	O	+	Vegetation
Onopordum leptolepis	biennial	20-30	O	1	vegetation
Papaver pavoninum	annual	10-15	O	+	flowering
Plantago lanceolata	perennial	10-15	O	+	vegetation
Poa bulbosa	perennial	20-25	A	2	fruiting
Rhaponiticum repens (Acroptilon repens)	perennial	15-20	O	+	vegetation
Rosa persica (Hulthemia persica)	subshrub	30-40	F	1	vegetation
Sisymbrium altissimum	annual	30-40	O	+	Flowering, fruiting
Sophora pachycarpa	perennial	30-40	R	+	vegetation
Strigosella africana	annual	12-15	O	+	flowering
Ulmus pumila	tree	2-3 m	F	2	vegetation
Xanthium spinosum	annual	25-30	R	+	vegetation

Table 24: Check-list of plants recorded on sample plot (39.52184° N, 66.464766° E), 70 km OTHL, Nurobod District of Samarkand Region, 2.5 km to the northwest of the village Sarikul, rainfed arable lands (wheat fields)

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Achillea arabica (Achillea biebersteinii)	perennial	10-15	O	+	vegetation
Alhagi pseudalhagi	perennial	20-30	F	1	dried
Alyssum desertorum	annual	5-7	O	+	fruiting
Astragalus filicaulis	annual	10-12	O	+	flowering
Bromus tectorum	Annual	15-20	F	1	Budding
Capsella bursa-pastoris	annual	20-25	F	1	Flowering, fruiting

Carex pachystylis	perennial	12-15	A	2	fruiting
Ceratocephala orthoceras	annual	4-5	O	+	fruiting
Cichorium intybus	perennial	15-20	O	+	vegetation
Convolvulus arvensis	Perennial, liana	10-15	O	+	vegetation
Cousinia resinosa	perennial	15-20	R	+	vegetation
Cryptospora falcata (Cryptospora omissa)	annual	15-20	O	+	flowering
Descurainia sophia	annual	20-30	F	1	Flowering, fruiting
Draba verna (Erophila verna)	annual	5-7	O	+	Flowering, fruiting
Erodium cicutarium	annual	10-12	F	+	Flowering, fruiting
Eruca sativa	annual	10-15	O	+	flowering
Gagea kunawurensis (Gagea stipitata)	perennial	10-12	F	+	flowering
Goldbachia torulosa	annual	15-20	O	-	Flowering, fruiting
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	15-20	F	1	vegetation
Hypecoum pendulum (Hypecoum parviflorum)	annual	10-12	O	+	flowering
Ixiolirion tataricum	perennial	10-15	O	+	Vegetation
Lepidium draba	perennial	15-20	F	1	flowering
Medicago monantha (Trigonella geminiflora)	annual	10-15	O	+	Flowering, fruiting
Nonea caspica	annual	10-15	O	+	Flowering, fruiting
Papaver pavoninum	annual	10-15	O	+	flowering
Phlomis thapsoides	perennial	15-20	O	+	vegetation
Poa bulbosa	perennial	15-20	A	2	Fruiting
Rosa persica (Hulthemia persica)	subshrub	20-30	F	1	vegetation
Strigosella africana	annual	12-15	O	+	flowering
Trigonella grandiflora	annual	15-20	O	+	Flowering, fruiting
Triticum aestivum (crops)	Annual	15-20	D	3	vegetation

Table 25. Check-list of plants recorded on sample plot 22-2024 (39.597503° N, 66.733704° E), 360 km OTHL, Pastdargom District of Samarkand Region, canal Eski Anhor, reeds and camel thorn-forb-grass community

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun- Blanquet	
Achillea wilhelmsii (Achillea kermanica)	Perennial	10-12	O	+	vegetation
Alhagi pseudalhagi	Perennial	15-20	F	1	Vegetation
Alyssum desertorum	Annual	5-7	O	+	fruiting
Arenaria leptoclados	Annual	10-15	O	+	flowering
Astragalus filicaulis	Annual	10-15	O	+	Flowering
Bromus tectorum	Annual	15-20	F	1	Budding
Capsella bursa-pastoris	annual	20-25	F	1	Flowering, fruiting

Carex pachystylis	perennial	7-10	F	1	fruiting
Cichorium intybus	perennial	10-15	R	+	Vegetation
Cirsium vulgare	biennial	20-30	R	+	Vegetation
Cousinia microcarpa	biennial	15-20	O	+	Vegetation
Cousinia resinosa	perennial	15-20	R	+	Vegetation
Cryptospora falcata (Cryptospora omissa)	annual	15-20	O	+	flowering
Descurainia sophia	annual	20-30	F	1	Flowering, fruiting
Erodium cicutarium	annual	12-15	F	1	Flowering, fruiting
Eryngium caeruleum	biennial	20-30	R	+	dried
Gagea kunawurensis (Gagea stipitata)	perennial	10-12	O	+	flowering
Holosteum umbellatum	annual	7-10	F	+	fruiting
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	15-20	C	2	Vegetation
Ixiolirion tataricum	perennial	10-15	O	+	vegetation
Koelpinia linearis	annual	10-15	R	+	flowering
Lamium amplexicaule	annual	10-15	O	+	flowering
Medicago monantha (Trigonella geminiflora)	annual	10-15	F	+	Flowering, fruiting
Meniocus linifolius	annual	7-10	O	+	Flowering, fruiting
Mentha longifolia var. asiatica	perennial	20-30	O	+	vegetation
Papaver pavoninum	annual	10-15	O	+	flowering
Parentucellia flaviflora	annual	7-10	O	+	flowering
Peganum harmala	perennial	20-30	O	1	vegetation
Phragmites australis	perennial	100-150	O	+	dried
Plantago lanceolata	perennial	12-15	O	+	vegetation
Poa bulbosa	perennial	15-20	A	1	fruiting
Rosa persica (Hulthemia persica)	subshrub	20-30	O	+	vegetation
Sisymbrium altissimum	annual	20-30	F	1	Flowering, fruiting
Strigosella africana	annual	12-15	O	+	flowering
Taraxacum monochlamydeum	perennial	10-12	F	1	fruiting
Trigonella grandiflora	annual	15-20	F	1	Flowering, fruiting
Veronica hederifolia	annual	10-12	O	+	Flowering, fruiting
Veronica polita	annual	10-12	O	+	Flowering, fruiting
Veronica persica	annual	10-12	O	+	Flowering, fruiting

Table 26. Check-list of plants recorded on sample plot 23-2024 (39.57993° N, 66.85574° E), 360 km OTHL, Pastdargom District of Samarkand Region, 5 km to the north of the village Szazagan, apple garden and camel thorn-grass community on boundary-strips

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	15-20	F	1	vegetation
Bromus scoparius	annual	15-20	O	+	vegetation

Bromus tectorum	annual	15-20	F	+	vegetation
Capparis spinosa	perennial	30-40	O	+	vegetation
Capsella bursa-pastoris	annual	25-30	F	+	Flowering, fruiting
Carduus arabicus	annual	15-20	O	+	budding
Carthamus oxyacanthus	annual	20-30	O	+	dried
Carthamus lanatus subsp. turkestanicus	annual	30-40	R	+	dried
Centaurea iberica	biennial	10-15	O	+	vegetation
Ceratocephala orthoceras	annual	4-5	F	+	Flowering, fruiting
Cichorium intybus	perennial	10-15	O	+	vegetation
Cirsium vulgare	biennial	15-20	R	+	vegetation
Convolvulus arvensis	Perennial, liana	5-10	F	+	vegetation
Cousinia microcarpa	biennial	10-15	O	+	vegetation
Descurainia sophia	annual	25-30	O	+	Flowering, fruiting
Echium biebersteinii	biennial	30-40	R	+	dried
Erodium cicutarium	annual	10-12	F	1	flowering
Eryngium caeruleum	biennial	20-30	R	+	dried
Holosteum umbellatum	annual	10-15	F	1	Flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	15-20	A	2	vegetation
Lamium amplexicaule	annual	10-15	O	+	flowering
Malus domestica	tree	250-300	D	4	vegetation
Malva neglecta	perennial	7-10	O	+	Vegetation
Onopordum leptolepis	biennial	15-20	O	+	vegetation
Papaver pavoninum	annual	10-15	O	+	Budding
Picnemon acarna	annual	30-40	R	+	dried
Plantago lanceolata	perennial	10-15	O	+	vegetation
Poa bulbosa	perennial	15-20	F	1	Flowering, fruiting
Rosa persica (Hulthemia persica)	subshrub	15-20	O	+	vegetation
Sisymbrium altissimum	annual	25-30	O	+	Flowering, fruiting
Sophora pachycarpa	perennial	10-15	R	+	vegetation
Xanthium spinosum	annual	10-15	R	+	vegetation

Table 27. Check-list of plants recorded on sample plot 24-2024 (39.77646° N, 66.79124° E), 360 km OTHL, Akdarya District of Samarkand Region, native riparian vegetation on the floodplain on the right bank of the river Karadarya (left branch of the river Zeravshan)

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Aeluropus litoralis	perennial	15-20	F	1	vegetation
Alhagi pseudalhagi	perennial	30-40	O	1	vegetation
Arenaria leptoclados	annual	10-15	O	+	flowering
Artemisia absinthium	perennial	20-30	R	+	vegetation
Asperugo procumbens	annual	25-30	F	1	Flowering, fruiting
Bromus scoparius	annual	20-25	F	1	vegetation
Bromus tectorum	annual	15-20	A	1	vegetation

<i>Buglossoides arvensis</i>	annual	20-30	O	+	Flowering, fruiting
<i>Calamagrostis pseudophragmites</i>	perennial	40-50	O	+	vegetation
<i>Capsella bursa-pastoris</i>	annual	25-30	F	1	Flowering, fruiting
<i>Caragana halodendron</i>	shrub	150-180	A	2	vegetation
<i>Carduus arvensis</i>	annual	30-40	O	+	flowering
<i>Carthamus lanatus</i> subsp. <i>turkestanicus</i>	annual	30-40	O	+	vegetation
<i>Centaurea iberica</i>	biennial	20-30	O	+	vegetation
<i>Cerastium glomeratum</i>	annual	12-15	F	+	Flowering, fruiting
<i>Ceratocephala orthoceras</i>	annual	4-5	F	+	Flowering, fruiting
<i>Cichorium intybus</i>	perennial	20-30	O	+	vegetation
<i>Cirsium vulgare</i>	biennial	30-40	O	+	vegetation
<i>Conium maculatum</i>	annual, biennial	30-40	R	+	vegetation
<i>Cynanchum acutum</i> ssp. <i>sibiricum</i>	Perennial, liana	100-150	F	1	vegetation
<i>Descurainia sophia</i>	annual	25-30	F	1	Flowering, fruiting
<i>Elaeagnus andustifolia</i>	tree	300-400	O	1	vegetation
<i>Epilobium hirsutum</i>	perennial	40-50	R	+	vegetation
<i>Equisetum arvense</i>	perennial	30-40	O	+	vegetation
<i>Erodium cicutarium</i>	annual	12-15	F	1	Flowering, fruiting
<i>Euphorbia helioscopia</i>	annual	15-20	F	1	Flowering, fruiting
<i>Draba verna</i> (<i>Erophila verna</i>)	annual	5-6	F	+	Flowering, fruiting
<i>Galium aparine</i>	annual	40-50	F	1	Flowering, fruiting
<i>Glycyrrhiza glabra</i>	perennial	50-70	F	1	vegetation
<i>Hippophae rhamnoides</i>	shrub	200-300	F	2	vegetation
<i>Holosteum umbellatum</i>	annual	12-15	F	+	Flowering, fruiting
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	15-20	F	1	vegetation
<i>Hornungia procumbens</i> (<i>Hymenolobus procumbens</i>)	annual	10-15	O	+	Flowering, fruiting
<i>Karelinia caspia</i>	perennial	40-50	F	1	vegetation
<i>Lamium amplexicaule</i>	annual	12-15	F	+	Flowering
<i>Lepidium draba</i>	perennial	25-30	O	+	flowering
<i>Lycium dasystemum</i>	shrub	100-150	R	+	vegetation
<i>Malva neglecta</i>	biennial, perennial	10-12	R	+	Flowering
<i>Marrubium anisodon</i>	perennial	20-30	R	+	vegetation
<i>Mentha longifolia</i> var. <i>asiatica</i>	perennial	20-30	O	+	vegetation
<i>Noccaea perfoliata</i> (<i>Thlaspi perfoliatum</i>)	annual	12-15	F	1	Flowering, fruiting
<i>Phragmites australis</i>	perennial	70-100	O	1	vegetation
<i>Plantago lanceolata</i>	perennial	15-20	F	1	vegetation
<i>Plantago major</i>	perennial	15-20	F	1	vegetation

<i>Poa bulbosa</i>	perennial	20-25	A	1	Flowering, fruiting
<i>Poacynum scabrum</i> (<i>Trachomitum scabrum</i>)	Perennial, liana	100-150	O	+	vegetation
<i>Polygonum argyrocoleon</i>	annual	15-20	O	+	vegetation
<i>Polygonum aviculare</i>	Annual, perennial	15-20	R	+	vegetation
<i>Potentilla reptans</i>	perennial	10-12	O	+	vegetation
<i>Puccinellia distans</i>	perennial	30-40	O	+	vegetation
<i>Rumex conglomeratus</i>	perennial	30-40	O	+	vegetation
<i>Rubus caesius</i>	shrub	100-150	O	1	vegetation
<i>Salix wilhelmsiana</i>	shrub	200-250	F	2	vegetation
<i>Scandix pecten-veneris</i>	annual	15-20	F	1	Flowering, fruiting
<i>Sisymbrium altissimum</i>	annual	30-40	O	+	Flowering, fruiting
<i>Sisymbrium loeselii</i>	annual	30-40	O	+	vegetation
<i>Sonchus oleraceus</i>	annual	20-30	R	+	vegetation
<i>Sophora alopecuroides</i>	perennial	20-30	O	+	vegetation
<i>Stellaria neglecta</i>	annual	12-15	O	+	flowering
<i>Strigosella africana</i>	annual	20-30	O	+	Flowering, fruiting
<i>Tamarix ramosissima</i>	shrub	200-250	A	2	vegetation
<i>Trifolium repens</i>	perennial	10-15	O	+	vegetation
<i>Tripidium ravennae</i> (<i>Erianthus ravennae</i>)	perennial	200-220	R	+	vegetation
<i>Typha angustifolia</i>	perennial	150-200	O	+	vegetation
<i>Typha laxmannii</i>	perennial	100-150	O	+	vegetation
<i>Veronica hederifolia</i>	annual	10-12	F	1	Flowering, fruiting
<i>Veronica polita</i>	annual	10-12	F	1	Flowering, fruiting
<i>Veronica persica</i>	annual	10-12	O	+	Flowering, fruiting
<i>Vulpia ciliata</i>	annual	12-15	F	1	vegetation
<i>Xanthium spinosum</i>	annual	15-20	O	+	vegetation

Table 28. Check-list of plants recorded on sample plot 25-2024 (39.824868° N, 66.84101° E), 360 km OTHL, Akdarya District of Samarkand Region, irrigated arable lands, boundary-strips and woodland belts near the village Kumushkent

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
<i>Alhagi pseudalhagi</i>	perennial	15-20	O	+	vegetation
<i>Alyssum desertorum</i>	Annual	5-7	O	+	fruiting
<i>Asperugo procumbens</i>	annual	25-30	O	+	Flowering, fruiting
<i>Bromus tectorum</i>	annual	15-20	O	+	Flowering
<i>Capsella bursa-pastoris</i>	annual	20-30	F	1	Flowering, fruiting
<i>Centaurea iberica</i>	biennial	15-20	O	+	vegetation
<i>Cichorium intybus</i>	perennial	15-20	O	+	vegetation
<i>Cirsium vulgare</i>	biennial	30-40	O	+	vegetation

<i>Convolvulus arvensis</i>	Perennial, liana	10-15	O	+	vegetation
<i>Descurainia sophia</i>	annual	20-30	F	1	Flowering, fruiting
<i>Echium biebersteinii</i>	biennial	25-30	R	+	dried
<i>Elaeagnus andustifolia</i>	tree	2-3 m	O	1	vegetation
<i>Erodium cicutarium</i>	annual	12-15	F	1	Flowering, fruiting
<i>Euphorbia helioscopia</i>	annual	12-15	O	+	Flowering, fruiting
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	15-20	F	1	vegetation
<i>Lamium amplexicaule</i>	annual	10-15	F	+	flowering
<i>Malus domestica</i>	tree	2-3 m	R	+	vegetation
<i>Malva neglecta</i>	perennial	7-10	O	+	Vegetation
<i>Morus alba</i>	tree	2-3 m	O	1	vegetation
<i>Noccaea perfoliata</i> (<i>Thlaspi</i> <i>perfoliatum</i>)	annual	12-15	O	+	Flowering, fruiting
<i>Onopordum leptolepis</i>	biennial	20-30	R	+	vegetation
<i>Papaver pavoninum</i>	annual	15-20	R	+	flowering
<i>Plantago lanceolata</i>	perennial	15-20	F	1	vegetation
<i>Poa bulbosa</i>	perennial	20-25	A	2	Flowering, fruiting
<i>Populus afghanica</i>	tree	5-7 m	F	1	flowering
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	subshrub	20-30	O	+	vegetation
<i>Rumex conglomeratus</i>	perennial	30-40	R	+	vegetation
<i>Sisymbrium altissimum</i>	annual	30-40	F	1	Flowering, fruiting
<i>Sisymbrium loeselii</i>	annual	30-40	O	+	vegetation
<i>Sophora alopecuroides</i>	perennial	30-40	R	+	vegetation
<i>Stellaria neglecta</i>	annual	12-15	O	+	flowering
<i>Strigosella africana</i>	annual	12-15	O	+	flowering
<i>Trifolium repens</i>	perennial	10-15	F	1	vegetation
<i>Ulmus pumila</i>	tree	2-3 m	O	1	flowering
<i>Veronica hederifolia</i>	annual	10-12	O	+	Flowering, fruiting
<i>Veronica polita</i>	annual	10-12	O	+	Flowering, fruiting
<i>Veronica persica</i>	annual	10-12	O	+	Flowering, fruiting
<i>Xanthium spinosum</i>	annual	25-30	R	+	vegetation

Table 29. Check-list of plants recorded on sample plot 26-2024 (39.87971° N, 66.98251° E), 360 km OTHL, Dzhambay District of Samarkand Region, small irrigated arable lands and woodland belts, between the village Dauchar and canal Payaryk

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun- Blanquet	
<i>Achillea wilhelmsii</i> (<i>Achillea</i> <i>kermanica</i>)	perennial	10-15	O	+	vegetation
<i>Alhagi pseudalhagi</i>	perennial	30-40	O	+	vegetation
<i>Artemisia ferganensis</i>	perennial	20-30	O	+	vegetation

<i>Asperugo procumbens</i>	annual	25-30	O	+	Flowering, fruiting
<i>Bromus scoparius</i>	annual	15-20	O	+	vegetation
<i>Bromus tectorum</i>	annual	15-20	O	+	vegetation
<i>Buglossoides arvensis</i>	annual	20-30	O	+	Flowering, fruiting
<i>Calamagrostis pseudophragmites</i>	perennial	40-50	O	+	vegetation
<i>Capsella bursa-pastoris</i>	annual	25-30	F	1	Flowering, fruiting
<i>Carthamus lanatus</i> subsp. <i>turkestanicus</i>	annual	20-30	O	+	vegetation
<i>Centaurea iberica</i>	biennial	20-30	O	+	vegetation
<i>Cichorium intybus</i>	perennial	20-30	F	+	vegetation
<i>Cirsium vulgare</i>	biennial	30-40	O	+	vegetation
<i>Clematis orientalis</i>	Perennial, liana	100-150	R	+	vegetation
<i>Convolvulus arvensis</i>	Perennial, liana	15-20	F	+	vegetation
<i>Cynanchum acutum</i> ssp. <i>sibiricum</i>	Perennial, liana	100-150	R	+	vegetation
<i>Cynodon dactylon</i>	perennial	10-15	F	1	vegetation
<i>Descurainia sophia</i>	annual	20-30	O	+	Flowering, fruiting
<i>Elymus repens</i>	perennial	30-40	O	+	vegetation
<i>Eryngium caeruleum</i>	Biennial, perennial	30-40	R	+	dried
<i>Euphorbia helioscopia</i>	annual	15-20	O	+	Flowering, fruiting
<i>Fallopia convolvulus</i>	Annual, liana	70-100	O	+	vegetation
<i>Galium humifusum</i>	perennial	20-25	O	+	vegetation
<i>Erodium cicutarium</i>	annual	12-15	O	+	Flowering, fruiting
<i>Geranium pusillum</i>	annual	15-20	R	+	Flowering
<i>Glycyrrhiza glabra</i>	perennial	50-70	F	1	vegetation
<i>Holosteum umbellatum</i>	annual	12-15	O	+	Flowering, fruiting
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	25-30	F	1	vegetation
<i>Lactuca serriola</i>	annual, biennial	25-30	R	+	vegetation
<i>Lamium amplexicaule</i>	annual	10-15	F	+	flowering
<i>Lepidium draba</i>	perennial	25-30	O	+	Flowering, fruiting
<i>Lepidium latifolium</i>	perennial	40-50	O	+	vegetation
<i>Marrubium anisodon</i>	perennial	30-40	R	+	vegetation
<i>Medicago sativa</i>	perennial	20-30	A	2	vegetation
<i>Mentha longifolia</i> var. <i>asiatica</i>	perennial	50-100	O	+	vegetation
<i>Morus alba</i>	tree	250-300	R	1	vegetation
<i>Phragmites australis</i>	perennial	100-150	F	1	vegetation
<i>Picnemon acarna</i>	annual	40-50	O	+	vegetation
<i>Plantago lanceolata</i>	perennial	15-25	O	+	vegetation
<i>Plantago major</i>	perennial	15-25	O	+	vegetation
<i>Poa bulbosa</i>	perennial	25-30	A	1	Flowering, fruiting

<i>Polygonum aviculare</i>	Annual, perennial	15-20	O	+	Flowering, fruiting
<i>Populus afghanica</i>	tree	3-5 m	F	2	flowering
<i>Rhaponticum repens</i> (<i>Acroptilon repens</i>)	perennial	20-30	O	+	vegetation
<i>Rumex conglomeratus</i>	perennial	30-40	O	+	vegetation
<i>Scandix pecten-veneris</i>	annual	15-20	O	+	Flowering, fruiting
<i>Sisymbrium altissimum</i>	annual	30-40	F	1	Flowering, fruiting
<i>Sophora alopecuroides</i>	perennial	30-40	O	+	vegetation
<i>Taraxacum monochlamydeum</i>	perennial	12-15	O	+	fruiting
<i>Trifolium repens</i>	perennial	10-15	F	1	vegetation
<i>Typha angustifolia</i>	perennial	100-150	F	1	vegetation
<i>Veronica hederifolia</i>	annual	10-12	F	1	Flowering, fruiting
<i>Veronica polita</i>	annual	10-12	O	+	Flowering, fruiting
<i>Veronica persica</i>	annual	10-12	F	1	Flowering, fruiting
<i>Xanthium spinosum</i>	annual	25-30	O	+	vegetation

Table 30. Check-list of plants recorded on sample plot 27-2024 (39.85665° N, 67.15567° E), 360 km OTHL, Dzhambay District of Samarkand Region, southern piedmonts of Khobduntau Range, 3.5 km to the northeast of the village Qongiro, dry ravine among apple gardens, rainfed arable lands and fallow lands

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
<i>Achillea wilhelmsii</i> (<i>Achillea kermanica</i>)	Perennial	10-15	O	+	vegetation
<i>Alhagi pseudalhagi</i>	perennial	15-20	O	+	vegetation
<i>Alyssum desertorum</i>	annual	5-7	F	+	Flowering, fruiting
<i>Arenaria leptoclados</i>	annual	10-15	O	+	flowering
<i>Artemisia sogdiana</i>	subshrub	10-15	O	+	vegetation
<i>Astragalus bactrianus</i>	subshrub	20-25	R	+	vegetation
<i>Astragalus campylorrhynchus</i>	annual	10-15	R	+	Flowering, fruiting
<i>Astragalus filicaulis</i>	annual	10-15	O	+	Flowering, fruiting
<i>Bromus danthoniae</i>	annual	10-15	O	+	vegetation
<i>Bromus tectorum</i>	annual	15-20	O	+	Vegetation
<i>Capparis spinosa</i>	perennial	15-20	R	+	Vegetation
<i>Carex pachystylis</i>	perennial	7-10	A	2	Flowering, fruiting
<i>Carthamus lanatus</i> subsp. <i>turkestanicus</i>	annual	20-30	O	+	vegetation
<i>Centaurea iberica</i>	biennial	15-20	O	+	Vegetation
<i>Ceratocephala orthoceras</i>	annual	4-5	F	+	Flowering, fruiting
<i>Cousinia radians</i>	biennial	15-20	O	+	Vegetation
<i>Cousinia resinosa</i>	perennial	20-25	O	+	Vegetation

Cullen drupaceum (Psoralea drupacea)	perennial	20-25	F	1	Vegetation
Draba verna (Erophila verna)	annual	5-7	F	1	Flowering, fruiting
Erodium cicutarium	annual	10-15	F	1	Flowering
Gagea olgae	perennial	5-7	F	+	Flowering
Haplophyllum versicolor	perennial	5-10	R	+	Vegetation
Holosteum umbellatum	annual	7-10	F	+	Flowering, fruiting
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	10-15	O	+	Vegetation
Ixiolirion tataricum	perennial	10-15	O	+	Vegetation
Koelpinia linearis	annual	10-15	R	+	Flowering
Malva neglecta	perennial	7-10	O	+	Vegetation
Papaver pavoninum	annual	10-15	O	+	Budding
Peganum harmala	perennial	15-20	R	+	vegetation
Poa bulbosa	perennial	15-20	A	1	Flowering, fruiting
Plantago lanceolata	perennial	5-10	O	+	Vegetation
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation
Sophora pachycarpa	perennial	15-20	R	+	Vegetation
Strigosella africana	annual	10-15	R	+	Flowering
Taraxacum monochlamydeum	perennial	10-12	O	+	flowering
Xanthium spinosum	annual	20-30	R	+	Vegetation

Table 31. Check-list of plants recorded on sample plot 28-2024, (39.82803° N, 67.26876° E), 360 km OTHL, Bulungur District of Samarkand Region, southern piedmonts of Khobduntau Range, 3 km to the north of the village Gatcha, rainfed arable lands and fallow lands

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	15-20	O	+	vegetation
Astragalus bactrianus	subshrub	20-25	R	+	vegetation
Astragalus alopecias	perennial	30-40	R	+	vegetation
Astragalus filicaulis	annual	10-15	O	+	Flowering, fruiting
Bromus scoparius	annual	15-20	O	+	budding
Bromus tectorum	annual	15-20	O	+	budding
Capparis spinosa	perennial	30-40	R	+	vegetation
Carex pachystylis	perennial	7-10	F	1	fruiting
Carthamus oxyacanthus	annual	20-25	O	+	vegetation
Carthamus lanatus subsp. turkestanicus	annual	30-40	O	+	vegetation
Centaurea belangeriana	annual, biennial	20-25	O	+	vegetation
Centaurea iberica	biennial	20-25	O	+	vegetation
Centaurea solstitialis	annual	20-25	R	+	vegetation
Centaurea virgata subsp. squarrosa	perennial	30-40	O	+	vegetation
Ceratocarpus arenarius	annual	5-10	R	+	vegetation
Ceratocephala orthoceras	annual	4-5	O	+	Flowering, fruiting
Cichorium intybus	perennial	20-25	O	+	vegetation

<i>Convolvulus arvensis</i>	Perennial, liana	10-15	O	+	Flowering
<i>Convolvulus pseudocantabrica</i>	perennial	30-40	R	+	vegetation
<i>Cousinia radians</i>	biennial	15-20	O	+	vegetation
<i>Cullen drupaceum</i> (<i>Psoralea drupacea</i>)	perennial	15-20	R	+	Vegetation
<i>Cynodon dactylon</i>	perennial	10-15	O	+	vegetation
<i>Dodartia orientalis</i>	perennial	25-30	R	+	vegetation
<i>Draba verna</i> (<i>Erophila verna</i>)	annual	5-7	F	1	fruiting
<i>Erodium cicutarium</i>	annual	10-15	F	1	Flowering
<i>Eryngium caeruleum</i>	Biennial, perennial	15-20	O	+	vegetation
<i>Euclidium syriacum</i>	annual	10-15	R	+	flowering
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)	perennial	10-12	O	+	flowering
<i>Gagea olgae</i>	perennial	5-7	O	+	fruiting
<i>Haplophyllum acutifolium</i>	perennial	20-30	R	+	vegetation
<i>Haplophyllum versicolor</i>	perennial	15-20	O	+	vegetation
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	20-25	O	+	flowering
<i>Ixiolirion tataricum</i>	perennial	15-20	O	+	Vegetation
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)	annual	10-15	O	+	Flowering, fruiting
<i>Onopordum leptolepis</i>	biennial	20-30	R	+	vegetation
<i>Papaver pavoninum</i>	annual	20-25	O	+	flowering
<i>Parentucellia flaviflora</i>	annual	7-10	O	+	flowering
<i>Peganum harmala</i>	perennial	15-20	R	+	vegetation
<i>Phleum paniculatum</i>	annual	12-15	R	+	flowering
<i>Picnomon acarna</i>	annual	15-20	O	+	vegetation
<i>Plantago lanceolata</i>	perennial	10-15	O	+	flowering
<i>Poa bulbosa</i>	perennial	20-25	C	1	fruiting
<i>Ranunculus sewerzowii</i>	perennial	5-7	O	+	vegetation
<i>Rhaponticum repens</i> (<i>Acroptilon repens</i>)	perennial	15-20	R	+	vegetation
<i>Roemeria refracta</i>	annual	20-25	O	+	flowering
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	subshrub	15-20	O	+	vegetation
<i>Salvia spinosa</i>	perennial	25-30	R	+	vegetation
<i>Sisymbrium altissimum</i>	annual	25-30	R	+	Flowering, fruiting
<i>Sophora pachycarpa</i>	perennial	20-25	O	+	vegetation
<i>Turgenia latifolia</i>	annual	10-15	R	+	vegetation
<i>Xanthium spinosum</i>	annual	20-25	R	+	vegetation

Table 32. Check-list of plants recorded on sample plot 29-2024 (39.877729° N, 67.507534° E), 360 km OTHL, Bakhmal District of Dzhizak Region, western piedmonts of Turkestan Range, surroundings of the village Khonimkorgon, apple garden among rainfed arable lands

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun- Blanquet	
<i>Achillea wilhelmsii</i> (<i>Achillea kermanica</i>)	Perennial	10-15	O	+	vegetation
<i>Alhagi pseudalhagi</i>	perennial	15-20	O	+	vegetation
<i>Arenaria leptoclados</i>	annual	10-15	O	+	flowering

<i>Artemisia serotina</i>	perennial	15-20	O	+	vegetation
<i>Astragalus campylotrichus</i>	annual	10-15	O	+	Flowering, fruiting
<i>Astragalus filicaulis</i>	annual	10-15	O	+	Flowering, fruiting
<i>Bromus tectorum</i>	annual	15-20	O	+	vegetation
<i>Capsella bursa-pastoris</i>	annual	20-30	O	+	Flowering, fruiting
<i>Capparis spinosa</i>	perennial	30-40	R	+	vegetation
<i>Carex pachystylis</i>	perennial	7-10	F	1	fruiting
<i>Centaurea iberica</i>	biennial	10-15	R	+	vegetation
<i>Centaurea virgata</i> subsp. <i>squarrosa</i>	perennial	10-15	O	+	vegetation
<i>Ceratocephala orthoceras</i>	annual	4-5	O	+	Flowering, fruiting
<i>Cichorium intybus</i>	perennial	10-15	R	+	vegetation
<i>Cirsium vulgare</i>	biennial	20-30	R	+	vegetation
<i>Convolvulus arvensis</i>	Perennial, liana	5-10	F	+	vegetation
<i>Descurainia sophia</i>	annual	20-30	R	+	Flowering, fruiting
<i>Draba nuda</i>	Annual	5-7	O	+	fruiting
<i>Draba verna</i> (<i>Erophila verna</i>)	annual	5-7	F	+	fruiting
<i>Echium biebersteinii</i>	biennial	30-40	O	+	dried
<i>Erodium cicutarium</i>	annual	10-12	O	+	flowering
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)	perennial	10-12	O	+	flowering
<i>Handelia trichophylla</i>	perennial	30-40	R	+	vegetation
<i>Holosteum umbellatum</i>	annual	10-15	F	1	Flowering
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	15-20	A	2	vegetation
<i>Hypocoum pendulum</i>	annual	15-20	R	+	Flowering, fruiting
<i>Ixiolirion tataricum</i>	perennial	15-20	O	+	Vegetation
<i>Lamium amplexicaule</i>	annual	10-15	O	+	flowering
<i>Malus domestica</i>	tree	250-300	D	4	vegetation
<i>Malva neglecta</i>	perennial	7-10	R	+	Vegetation
<i>Morus alba</i>	tree	300-350	R	1	vegetation
<i>Papaver pavoninum</i>	annual	10-15	O	+	Budding
<i>Phleum paniculatum</i>	annual	12-15	R	+	flowering
<i>Plantago lanceolata</i>	perennial	10-15	O	+	flowering
<i>Poa bulbosa</i>	perennial	15-20	A	1	Flowering, fruiting
<i>Prunus armeniaca</i> (<i>Armeniaca vulgaris</i>)	tree	300-350	R	1	flowering
<i>Prunus cerasifera</i>	shrub	200-250	R	1	flowering
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	subshrub	20-30	R	+	vegetation
<i>Sisymbrium altissimum</i>	annual	20-30	R	+	budding
<i>Sophora pachycarpa</i>	perennial	10-15	O	+	vegetation
<i>Taraxacum monochlamydeum</i>	perennial	10-12	O	+	flowering
<i>Trifolium repens</i>	perennial	10-15	O	+	flowering
<i>Veronica polita</i>	annual	10-12	O	+	Flowering, fruiting
<i>Veronica persica</i>	annual	10-12	O	+	Flowering, fruiting

Table 33. Check-list of plants recorded on sample plot 30-2024 (39.915786° N, 67.530745° E), 360 km OTHL, Bakhmal District of Dzhizak Region, western piedmonts of Turkestan Range, surroundings of the village Gallakor, rainfed arable lands

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
<i>Achillea wilhelmsii</i> (<i>Achillea kermanica</i>)	Perennial	10-15	O	+	vegetation
<i>Alhagi pseudalhagi</i>	perennial	15-20	O	+	vegetation
<i>Alyssum desertorum</i>	annual	5-7	O	+	fruiting
<i>Astragalus filicaulis</i>	annual	10-15	O	+	flowering
<i>Carex pachystylis</i>	perennial	7-10	F	1	fruiting
<i>Centaurea virgata</i> subsp. <i>squarrosa</i>	perennial	15-20	O	+	vegetation
<i>Ceratocephala orthoceras</i>	annual	4-5	O	+	fruiting
<i>Cousinia radians</i>	biennial	15-20	O	+	vegetation
<i>Cousinia resinosa</i>	perennial	15-20	R	+	vegetation
<i>Draba verna</i> (<i>Erophila verna</i>)	annual	5-7	O	+	fruiting
<i>Erodium cicutarium</i>	annual	10-12	O	+	flowering
<i>Gagea graminifolia</i>	perennial	4-5	R	+	flowering
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)	perennial	10-12	O	+	flowering
<i>Gagea olgae</i>	perennial	5-7	O	+	fruiting
<i>Gentiana olivieri</i>	perennial	5-7	O	+	vegetation
<i>Handelia trichophylla</i>	perennial	30-40	R	+	vegetation
<i>Haplophyllum versicolor</i>	perennial	15-20	R	+	vegetation
<i>Holosteum umbellatum</i>	annual	7-10	O	+	fruiting
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	15-20	O	+	flowering
<i>Ixiolirion tataricum</i>	perennial	10-15	O	+	vegetation
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)	annual	5-7	F	+	Flowering, fruiting
<i>Papaver pavoninum</i>	annual	10-15	R	+	flowering
<i>Parentucellia flaviflora</i>	annual	7-10	O	+	flowering
<i>Plantago lanceolata</i>	perennial	10-15	O	+	flowering
<i>Poa bulbosa</i>	perennial	20-25	F	1	Fruiting
<i>Ranunculus sewerzowii</i>	perennial	5-7	F	+	vegetation
<i>Rosa persica</i> (<i>Hulthemia persica</i>)	subshrub	20-30	R	+	vegetation
<i>Triticum aestivum</i> (crops)	Annual	15-20	D	4	vegetation
<i>Veronica polita</i>	annual	10-12	O	+	Flowering, fruiting
<i>Veronica persica</i>	annual	10-12	O	+	Flowering, fruiting

Table 34. Check-list of plants recorded on sample plot 31-2024 (40.06872° N, 67.56588° E), 360 km OTHL, Gallalar District of Dzhizak Region, between town Gallaaral and village Karakchi, woodland belt and rainfed arable lands

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
<i>Achillea wilhelmsii</i> (<i>Achillea kermanica</i>)	Perennial	10-15	O	+	vegetation

<i>Alhagi pseudalhagi</i>	perennial	15-20	F	1	vegetation
<i>Alyssum desertorum</i>	annual	5-7	O	+	fruiting
<i>Astragalus filicalis</i>	annual	10-15	O	+	Flowering, fruiting
<i>Bromus danthoniae</i>	annual	10-15	O	+	flowering
<i>Bromus scoparius</i>	annual	15-20	O	+	flowering
<i>Bromus tectorum</i>	annual	15-20	O	+	flowering
<i>Capparis spinosa</i>	perennial	30-40	R	+	vegetation
<i>Carex pachystylis</i>	perennial	7-10	F	1	fruiting
<i>Carthamus oxyacanthus</i>	annual	15-20	O	+	vegetation
<i>Centaurea belangeriana</i>	annual, biennial	15-20	O	+	vegetation
<i>Centaurea iberica</i>	biennial	15-20	O	+	vegetation
<i>Centaurea virgata</i> subsp. <i>squarrosa</i>	perennial	15-20	O	+	vegetation
<i>Ceratocephala orthoceras</i>	annual	4-5	O	+	fruiting
<i>Cichorium intybus</i>	perennial	15-20	O	+	vegetation
<i>Convolvulus arvensis</i>	Perennial, liana	10-15	O	+	flowering
<i>Convolvulus pseudocantabrica</i>	perennial	30-40	O	+	vegetation
<i>Cousinia microcarpa</i>	biennial	15-20	R	+	vegetation
<i>Cousinia radians</i>	biennial	15-20	R	+	vegetation
<i>Cousinia resinosa</i>	perennial	15-20	O	+	vegetation
<i>Cullen drupaceum</i> (<i>Psoralea drupacea</i>)	perennial	15-20	O	+	Vegetation
<i>Draba verna</i> (<i>Erophila verna</i>)	annual	5-7	O	+	fruiting
<i>Echium biebersteinii</i>	biennial	15-20	O	+	vegetation
<i>Erodium cicutarium</i>	annual	10-12	O	+	flowering
<i>Euclidium syriacum</i>	annual	10-15	O	+	flowering
<i>Fraxinus angustifolia</i> subsp. <i>syriaca</i>	tree	4-5 m	R	1	vegetation
<i>Gagea kunawurensis</i> (<i>Gagea stipitata</i>)	perennial	10-12	O	+	flowering
<i>Gentiana olivieri</i>	perennial	5-7	O	+	vegetation
<i>Handelia trichophylla</i>	perennial	30-40	R	+	vegetation
<i>Haplophyllum acutifolium</i>	perennial	15-20	R	+	vegetation
<i>Holosteum umbellatum</i>	annual	7-10	O	+	fruiting
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	15-20	O	+	flowering
<i>Ixiolirion tataricum</i>	perennial	10-15	O	+	vegetation
<i>Lamium amplexicaule</i>	annual	10-15	O	+	flowering
<i>Marrubium anisodon</i>	perennial	20-30	R	+	vegetation
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)	annual	5-7	F	+	Flowering, fruiting
<i>Onopordum leptolepis</i>	biennial	20-25	O	+	vegetation
<i>Papaver pavoninum</i>	annual	10-15	O	+	flowering
<i>Parentucellia flaviflora</i>	annual	7-10	O	+	flowering
<i>Plantago lanceolata</i>	perennial	10-15	O	+	flowering
<i>Poa bulbosa</i>	perennial	20-25	F	1	Fruiting
<i>Prunus bucharica</i> (<i>Amygdalus bucharica</i>)	shrub	200-250	O	+	flowering
<i>Ranunculus sewerzowii</i>	perennial	5-7	O	+	vegetation
<i>Rhaponticum repens</i> (<i>Acroptilon repens</i>)	perennial	20-25	O	+	vegetation
<i>Roemeria refracta</i>	annual	20-25	O	+	flowering

Sisymbrium altissimum	annual	30-40	O	+	Flowering, fruiting
Trigonella grandiflora	Annual	10-15	O	+	flowering
Turgenia latifolia	annual	10-15	O	+	vegetation
Veronica campylopoda	annual	10-12	O	+	Flowering, fruiting
Veronica polita	annual	10-12	O	+	Flowering, fruiting
Ulmus pumila	tree	3-5 m	F	2	vegetation
Xanthium spinosum	annual	15-20	O	+	vegetation

Table 35. Check-list of plants recorded on sample plot 32-2024 (40.112765° N, 67.64559° E), 360 km OTHL, Gallalal District of Dzhizak Region, southern slope of Nuratau Range, intensively grazed foothills with native camel thorn-ephemeroid vegetation

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Alhagi pseudalhagi	perennial	20-30	F	1	dried
Allium griffithianum	perennial	12-15	O	+	flowering
Alyssum desertorum	annual	5-7	O	+	fruiting
Arenaria leptocladus	annual	10-15	O	+	flowering
Artemisia sogdiana	perennial	15-20	O	+	vegetation
Astragalus bactrianus	subshrub	20-25	R	+	vegetation
Astragalus filicaulis	annual	10-15	O	+	Flowering, fruiting
Bromus tectorum	annual	10-15	O	+	flowering
Capparis spinosa	perennial	30-40	R	+	vegetation
Carex pachystylis	perennial	10-12	D	3	Flowering, fruiting
Centaurea virgata subsp. squarrosa	perennial	15-20	O	+	vegetation
Ceratocephala orthoceras	annual	4-5	O	+	fruiting
Cousinia microcarpa	biennial	15-20	R	+	vegetation
Cousinia radians	biennial	15-20	R	+	vegetation
Cousinia resinosa	perennial	10-15	R	+	vegetation
Draba nuda	annual	5-7	O	+	fruiting
Draba verna (Erophila verna)	annual	5-7	F	1	fruiting
Erodium cicutarium	annual	10-12	O	+	flowering
Gagea graminifolia	perennial	4-5	F	1	flowering
Gagea olgae	perennial	5-7	F	1	flowering
Gentiana olivieri	perennial	5-7	O	+	vegetation
Holosteum umbellatum	annual	7-10	O	+	flowering
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	10-15	F	1	vegetation
Ixiolirion tataricum	perennial	10-15	O	+	Vegetation
Leptaleum filifolium	annual	5-7	O	+	Flowering
Medicago monantha (Trigonella geminiflora)	annual	5-7	F	+	Flowering
Minuartia meyeri	annual	5-7	O	+	vegetation
Parentucellia flaviflora	annual	7-10	O	+	flowering
Poa bulbosa	perennial	15-20	A	2	Fruiting
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation

Table 36. Check-list of plants recorded on sample plot 33-2024 (40.1459° N, 67.69066° E), 360 km OTHL, Sharaf Rashidov District of Dzhizak Region, 3 km to the south of the village Kuyovboshi, northern slope of Nuratau Range with native sagebrush-forb-grass-spiny almond community

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
<i>Acanthophyllum pungens</i>	perennial	25-30	R	+	vegetation
<i>Alhagi pseudalhagi</i>	perennial	20-30	R	1	dried
<i>Allium filidens</i>	perennial	15-20	R	+	vegetation
<i>Alyssum desertorum</i>	annual	5-7	F	+	fruiting
<i>Arenaria leptoclados</i>	annual	10-15	F	+	flowering
<i>Artemisia sogdiana</i>	perennial	20-30	C	1	vegetation
<i>Astragalus bactrianus</i>	subshrub	20-30	O	+	vegetation
<i>Astragalus filicaulis</i>	annual	10-15	O	+	Flowering, fruiting
<i>Bromus danthoniae</i>	annual	10-15	O	+	flowering
<i>Bromus tectorum</i>	annual	15-20	O	+	flowering
<i>Capparis spinosa</i>	perennial	30-40	R	+	vegetation
<i>Carex pachystylis</i>	perennial	10-12	A	2	Flowering, fruiting
<i>Centaurea virgata</i> subsp. <i>squarrosa</i>	perennial	15-20	O	+	vegetation
<i>Ceratocephala orthoceras</i>	annual	4-5	O	+	fruiting
<i>Clypeola jonthlaspi</i>	annual	10-15	O	+	Flowering, fruiting
<i>Cousinia radians</i>	biennial	15-20	O	+	vegetation
<i>Dianthus helenae</i>	perennial	15-20	O	+	vegetation
<i>Draba nuda</i>	annual	5-7	O	+	fruiting
<i>Draba verna</i> (<i>Erophila verna</i>)	annual	5-7	O	+	fruiting
<i>Erodium cicutarium</i>	annual	10-12	O	+	flowering
<i>Gagea chomutovae</i>	perennial	15-20	R	+	flowering
<i>Gagea graminifolia</i>	perennial	4-5	F	1	flowering
<i>Gagea olgae</i>	perennial	5-7	O	1	flowering
<i>Gentiana olivieri</i>	perennial	5-7	O	+	vegetation
<i>Haplophyllum acutifolium</i>	perennial	15-20	R	+	vegetation
<i>Holosteum umbellatum</i>	annual	7-10	O	+	flowering
<i>Hypericum scabrum</i>	perennial	15-20	R	+	vegetation
<i>Ixiolirion tataricum</i>	perennial	10-15	O	+	Vegetation
<i>Litwinowia tenuissima</i>	annual	15-20	R	+	Flowering, fruiting
<i>Medicago monantha</i> (<i>Trigonella geminiflora</i>)	annual	5-7	F	+	Flowering
<i>Minuartia meyeri</i>	annual	5-7	O	+	vegetation
<i>Nanophyton saxatile</i>	subshrub	10-15	R	+	vegetation
<i>Noccaea perfoliata</i> (<i>Thlaspi perfoliatum</i>)	annual	12-15	O	+	Flowering, fruiting
<i>Phleum paniculatum</i>	annual	12-15	O	+	flowering
<i>Phlomis nubilans</i>	perennial	25-30	O	+	vegetation
<i>Poa bulbosa</i>	perennial	15-20	A	2	Fruiting
<i>Prunus</i> (<i>Amygdalus</i>) <i>spinosissima</i>	shrub	100-150	C	2	flowering
<i>Ranunculus sewerzowii</i>	perennial	15-20	R	+	flowering

Thinopyrum intermedium (Elytrigia trichophora)	perennial	15-20	O	+	vegetation
Veronica campylopoda	annual	10-12	O	+	Flowering, fruiting
Ziziphora clinopodioides	perennial	20-25	O	+	vegetation

Table 37. Check-list of plants recorded on sample plot 34-2024 (40.16754° N 67.694° E), 360 km OTHL, Sharaf Rashidov District of Dzhizak Region, 1.5 km to the west of the village Kuyovboshi, northern piedmonts of Nuratau Range, caper-ephemeroid-sagebrush community

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Acanthophyllum pungens	perennial	25-30	R	+	vegetation
Alhagi pseudalhagi	perennial	20-30	R	+	dried
Allium griffithianum	perennial	12-15	O	+	flowering
Alyssum desertorum	annual	5-7	O	+	fruiting
Aphanopleura capillifolia	annual	10-15	O	+	vegetation
Arenaria leptocladus	annual	10-15	O	+	flowering
Artemisia sogdiana	perennial	15-20	A	2	vegetation
Astragalus bactrianus	subshrub	20-25	R	+	vegetation
Astragalus filicaulis	annual	10-15	O	+	Flowering, fruiting
Bromus danthoniae	annual	10-15	O	+	flowering
Bromus tectorum	annual	10-15	O	+	flowering
Capparis spinosa	perennial	30-40	F	1	vegetation
Carex pachystylis	perennial	10-12	D	3	Flowering, fruiting
Ceratocephala orthoceras	annual	4-5	O	+	fruiting
Cousinia resinosa	perennial	10-15	R	+	vegetation
Draba nuda	annual	5-7	O	+	fruiting
Draba verna (Erophila verna)	annual	5-7	F	1	fruiting
Erodium cicutarium	annual	10-12	O	+	flowering
Gagea graminifolia	perennial	4-5	F	1	flowering
Gagea kunawurensis (Gagea stipitata)	perennial	10-12	O	+	flowering
Gagea olgae	perennial	5-7	F	1	fruiting
Gentiana olivieri	perennial	5-7	O	+	vegetation
Holosteum umbellatum	annual	7-10	O	+	fruiting
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	10-15	O	+	vegetation
Iris narbutii (Juno narbutii)	perennial	10-15	O	+	Vegetation
Ixiolirion tataricum	perennial	10-15	O	+	Vegetation
Leptaleum filifolium	annual	5-7	O	+	Flowering
Medicago monantha (Trigonella geminiflora)	annual	5-7	O	+	Flowering
Minuartia meyeri	annual	5-7	O	+	vegetation
Parentucellia flaviflora	annual	7-10	O	+	flowering
Phlomis thapsoides	perennial	30-40	O	+	vegetation
Poa bulbosa	perennial	15-20	C	2	Fruiting
Ranunculus pinnatisectus	perennial	15-20	R	+	flowering
Ranunculus sewerzowii	perennial	5-7	O	+	vegetation
Silene conica	annual	12-15	O	+	flowering

Veronica campylopoda	annual	10-12	O	+	Flowering, fruiting
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Table 38. Check-list of plants recorded on sample plot 35-2024 (40.5548° N, 68.61285° E), 360 km OTHL, Mirzaabad District of Syrdarya Region, drainage channel with camel thorn-reed-liquorice community, between irrigated arable lands and highway

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Achillea wilhelmsii (Achillea kermanica)	Perennial	15-20	R	+	vegetation
Aegilops triuncialis	annual	20-25	O	+	Flowering
Aeluropus littoralis	perennial	15-20	O	+	Flowering
Alhagi pseudalhagi	perennial	30-40	A	2	vegetation
Atriplex micrantha	annual	15-20	O	+	vegetation
Bolboschoenus maritimus	perennial	40-50	O	+	Flowering
Bromus danthoniae	annual	12-15	O	+	flowering
Bromus scoparius	annual	15-20	F	1	flowering
Bromus tectorum	annual	15-20	A	1	flowering
Capsella bursa-pastoris	annual	20-30	O	+	Flowering, fruiting
Carduus arabicus	annual	25-30	O	+	flowering
Carthamus lanatus subsp. turkestanicus	annual	50-70	O	+	vegetation
Centaurea iberica	biennial	20-30	O	+	vegetation
Ceratocephala orthoceras	annual	4-5	O	+	fruiting
Cirsium vulgare	biennial	50-100	R	+	vegetation
Convolvulus arvensis	Perennial, liana	10-15	O	+	flowering
Cynanchum acutum ssp. sibiricum	Perennial, liana	100-150	R	+	vegetation
Cynodon dactylon	perennial	15-20	F	1	vegetation
Descurainia sophia	annual	25-30	F	+	Flowering, fruiting
Dodartia orientalis	perennial	30-40	O	+	flowering
Eremopyrum triticeum	annual	12-15	O	+	flowering
Erodium cicutarium	annual	12-15	O	+	Flowering, fruiting
Eruca sativa	annual	20-25	R	+	flowering
Euphorbia helioscopia	annual	15-20	O	+	Flowering, fruiting
Frankenia pulverulenta	annual	10-15	O	+	flowering
Galium aparine	annual	40-50	F	1	Flowering, fruiting
Glycyrrhiza glabra	perennial	100-150	A	3	vegetation
Hordeum murinum subsp. leporinum (Hordeum leporinum)	annual	25-35	F	1	flowering
Hornungia procumbens (Hymenolobus procumbens)	annual	10-15	O	+	Flowering, fruiting
Karelinia caspia	perennial	40-40	F	1	vegetation
Lactuca serriola	annual, biennial	30-40	O	+	vegetation

Lepidium draba	perennial	25-30	O	+	Flowering, fruiting
Lepidium latifolium	perennial	40-50	O	+	vegetation
Leptaleum filifolium	annual	5-7	O	+	Flowering, fruiting
Limonium otolepis	perennial	30-40	C	1	Flowering
Morus alba	tree	250-300	R	1	vegetation
Papaver pavoninum	annual	15-20	O	+	flowering
Phleum paniculatum	annual	15-20	O	+	flowering
Phragmites australis	perennial	100-150	C	2	vegetation
Plantago lanceolata	perennial	15-25	O	+	Flowering
Plantago major	perennial	15-25	O	+	Flowering
Poa bulbosa	perennial	20-30	F	1	fruiting
Polypogon monspeliensis	annual	15-20	O	+	Flowering
Psylliostachys suworowii	annual	15-25	O	+	flowering
Puccinellia distans	perennial	30-40	O	+	flowering
Rumex conglomeratus	perennial	40-50	R	+	vegetation
Sisymbrium altissimum	annual	30-40	F	1	Flowering, fruiting
Sisymbrium loeselii	Annual, biennial	30-40	O	+	Flowering, fruiting
Strigosella africana	annual	12-15	O	+	Flowering, fruiting
Strigosella stenopetala	annual	12-15	R	+	Flowering, fruiting
Tamarix hohenackeri	shrub	70-100	R	+	flowering
Tamarix ramosissima	shrub	70-100	O	1	vegetation
Tripidium ravennae (Erianthus ravennae)	perennial	200-220	R	+	vegetation
Typha angustifolia	perennial	100-150	O	+	vegetation
Veronica polita	annual	10-12	O	+	Flowering, fruiting
Xanthium spinosum	annual	25-30	O	+	vegetation
Xanthium orientale	annual	15-20	O	+	vegetation
Zygophyllum oxianum	perennial	30-40	O	+	vegetation

Table 39. Check-list of plants recorded for riparian scrub on sample plot 36-2024 (40.81739° N, 68.82465° E), 360 km OTHL, Syrdarya District of Syrdarya Region, left bank of Syrdarya River

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
Aegilops cylindrica	annual	20-25	O	+	Flowering, fruiting
Aegilops triuncialis	annual	20-25	F	1	Flowering, fruiting
Alhagi pseudalhagi	perennial	30-40	F	1	vegetation
Alyssum desertorum	Annual	5-7	O	+	fruiting
Arenaria leptoclados	annual	10-15	O	+	flowering
Artemisia ferganensis	perennial	30-40	R	+	vegetation
Bromus scoparius	annual	20-30	O	+	flowering
Bromus tectorum	Annual	20-25	F	1	flowering
Capparis spinosa	perennial	30-40	R	+	vegetation

<i>Capsella bursa-pastoris</i>	annual	20-30	O	+	Flowering, fruiting
<i>Caragana halodendron</i>	shrub	100-150	F	2	flowering
<i>Carthamus lanatus</i> subsp. <i>turkestanicus</i>	annual	25-30	O	+	vegetation
<i>Centaurea iberica</i>	biennial	20-30	O	+	vegetation
<i>Ceratocephala orthoceras</i>	annual	4-5	O	+	fruiting
<i>Cichorium intybus</i>	perennial	20-30	R	+	vegetation
<i>Cirsium vulgare</i>	biennial	40-50	O	+	vegetation
<i>Clematis orientalis</i>	Perennial, liana	100-150	O	+	vegetation
<i>Convolvulus arvensis</i>	Perennial, liana	10-15	O	+	flowering
<i>Cynanchum acutum</i> ssp. <i>sibiricum</i>	Perennial, liana	100-150	R	+	vegetation
<i>Cynodon dactylon</i>	perennial	15-20	F	1	vegetation
<i>Descurainia sophia</i>	annual	30-40	O	+	Flowering, fruiting
<i>Dodartia orientalis</i>	perennial	30-40	O	+	flowering
<i>Elaeagnus angustifolia</i>	tree	250-300	F	2	flowering
<i>Equisetum ramosissimum</i>	perennial	20-30	R	+	vegetation
<i>Erodium cicutarium</i>	annual	10-15	F	+	Flowering, fruiting
<i>Euphorbia helioscopia</i>	annual	15-20	O	+	Flowering, fruiting
<i>Fallopia convolvulus</i>	Annual, liana	100-150	O	+	vegetation
<i>Galium spurium</i>	annual	30-40	F	1	Flowering, fruiting
<i>Geranium pusillum</i>	annual	15-20	O	+	Flowering
<i>Glycyrrhiza glabra</i>	perennial	40-50	O	+	vegetation
<i>Holosteum umbellatum</i>	annual	10-15	O	+	Flowering, fruiting
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	25-35	F	1	flowering
<i>Hordeum spontaneum</i>	annual	50-70	O	+	flowering
<i>Hornungia procumbens</i> (<i>Hymenolobus procumbens</i>)	annual	10-15	O	+	Flowering, fruiting
<i>Karelinia caspia</i>	perennial	50-70	O	+	vegetation
<i>Lactuca serriola</i>	annual, biennial	30-40	O	+	vegetation
<i>Lamium amplexicaule</i>	annual	10-15	O	+	Flowering, fruiting
<i>Lepidium draba</i>	perennial	25-30	O	+	Flowering, fruiting
<i>Limonium otolepis</i>	perennial	30-40	R	+	Flowering
<i>Lycium dasystemum</i>	shrub	50-100	R	+	Flowering
<i>Nonea caspica</i>	annual	10-15	R	+	Flowering
<i>Papaver pavoninum</i>	annual	15-20	O	+	flowering
<i>Peganum harmala</i>	perennial	25-35	R	+	flowering
<i>Phragmites australis</i>	perennial	70-100	O	1	vegetation
<i>Plantago lanceolata</i>	perennial	15-25	O	+	Flowering
<i>Plantago major</i>	perennial	15-25	O	+	Flowering
<i>Poa bulbosa</i>	perennial	25-30	A	1	fruiting
<i>Poacynum lancifolium</i> (<i>Trachomitum lancifolium</i>)	perennial	100-150	O	+	flowering

<i>Polygonum aviculare</i>	Annual, perennial	10-15	O	+	Flowering
<i>Populus pruinosa</i>	tree	5-6 m	O	1	flowering
<i>Silene conica</i>	annual	15-20	O	+	flowering
<i>Sisymbrium altissimum</i>	annual	30-40	F	1	Flowering, fruiting
<i>Sophora pachycarpa</i>	perennial	20-25	O	+	vegetation
<i>Strigosella africana</i>	annual	20-25	O	+	Flowering, fruiting
<i>Tamarix hohenackeri</i>	shrub	150-180	F	2	flowering
<i>Tamarix ramosissima</i>	shrub	150-180	F	2	vegetation
<i>Torilis arvensis</i>	annual	25-30	O	+	Flowering, fruiting
<i>Tribulus terrestris</i>	annual	10-15	O	+	Flowering
<i>Trigonella grandiflora</i>	annual	15-20	O	+	Flowering, fruiting
<i>Tripidium ravennae</i> (<i>Erianthus ravennae</i>)	perennial	200-220	R	+	vegetation
<i>Typha angustifolia</i>	perennial	100-150	O	+	vegetation
<i>Verbascum blattaria</i>	biennial	30-40	R	+	Flowering
<i>Veronica polita</i>	annual	10-12	O	+	Flowering, fruiting
<i>Xanthium spinosum</i>	annual	25-30	O	+	vegetation
<i>Xanthium orientale</i>	annual	15-20	O	+	vegetation

Table 40. Check-list of plants recorded on sample plot 37-2024 (40.98328° N, 69.07634° E), 360 km OTHL, Quyi Chirchiq District of Tashkent Region, 3 km to the south of SS Khalka, banks of canal, woodland belts, roadsides and boundary-strips between irrigated arable lands

Species	Life form	Height, cm	Abundance		Phenol. Stage
			DACFOR	Braun-Blanquet	
<i>Aeluropus litoralis</i>	perennial	10-15	O	+	vegetation
<i>Alhagi pseudalhagi</i>	perennial	30-40	F	1	vegetation
<i>Bolboschoenus glaucus</i>	perennial	40-50	R	+	flowering
<i>Bromus scoparius</i>	annual	20-25	F	1	flowering
<i>Bromus tectorum</i>	Annual	20-25	O	+	flowering
<i>Capparis spinosa</i>	perennial	30-40	R	+	vegetation
<i>Capsella bursa-pastoris</i>	annual	20-30	F	1	Flowering, fruiting
<i>Carthamus lanatus</i> subsp. <i>turkestanicus</i>	annual	25-30	F	1	vegetation
<i>Centaurea iberica</i>	biennial	20-30	F	1	vegetation
<i>Cichorium intybus</i>	perennial	20-30	R	+	vegetation
<i>Cirsium vulgare</i>	biennial	40-50	F	1	vegetation
<i>Clematis orientalis</i>	Perennial, liana	100-150	R	+	vegetation
<i>Convolvulus arvensis</i>	Perennial, liana	10-15	O	+	flowering
<i>Cynanchum acutum</i> ssp. <i>sibiricum</i>	Perennial, liana	100-150	O	+	vegetation
<i>Cynodon dactylon</i>	perennial	15-20	C	2	vegetation
<i>Descurainia sophia</i>	annual	30-40	O	+	Flowering, fruiting

<i>Dodartia orientalis</i>	perennial	30-40	O	+	flowering
<i>Elaeagnus angustifolia</i>	tree	250-300	R	+	flowering
<i>Elymus repens</i>	perennial	50-50	O	+	vegetation
<i>Epilobium hirsutum</i>	perennial	30-40	O	+	vegetation
<i>Equisetum arvense</i>	perennial	20-30	O	+	vegetation
<i>Erodium cicutarium</i>	annual	10-15	O	+	Flowering, fruiting
<i>Euphorbia helioscopia</i>	annual	15-20	O	+	Flowering, fruiting
<i>Fallopia convolvulus</i>	Annual, liana	100-150	R	+	vegetation
<i>Galium aparine</i>	annual	30-40	F	1	Flowering, fruiting
<i>Galium spurium</i>	annual	30-40	F	1	Flowering, fruiting
<i>Geranium dissectum</i>	annual	15-20	O	+	Flowering, fruiting
<i>Geranium pusillum</i>	annual	15-20	O	+	Flowering
<i>Glycyrrhiza glabra</i>	perennial	40-50	O	+	vegetation
<i>Holosteum umbellatum</i>	annual	10-15	O	+	Flowering, fruiting
<i>Hordeum murinum</i> subsp. <i>leporinum</i> (<i>Hordeum leporinum</i>)	annual	25-35	A	2	flowering
<i>Hordeum spontaneum</i>	annual	50-70	F	1	flowering
<i>Karelinia caspia</i>	perennial	50-70	O	+	vegetation
<i>Lactuca serriola</i>	annual, biennial	30-40	O	+	vegetation
<i>Lamium amplexicaule</i>	annual	10-15	O	+	Flowering, fruiting
<i>Lepidium draba</i>	perennial	25-30	F	1	Flowering, fruiting
<i>Malus domestica</i>	tree	250-300	R	1	vegetation
<i>Medicago sativa</i>	perennial	30-40	R	+	vegetation
<i>Mentha longifolia</i> var. <i>asiatica</i>	perennial	30-40	O	+	vegetation
<i>Morus alba</i>	tree	250-300	O	1	vegetation
<i>Onopordum acanthium</i>	biennial	30-40	O	+	vegetation
<i>Papaver pavoninum</i>	annual	15-20	O	+	flowering
<i>Peganum harmala</i>	perennial	25-35	R	+	flowering
<i>Phragmites australis</i>	perennial	70-100	O	1	vegetation
<i>Plantago lanceolata</i>	perennial	15-25	F	+	Flowering
<i>Plantago major</i>	perennial	15-25	O	+	Flowering
<i>Poa bulbosa</i>	perennial	25-30	A	1	fruiting
<i>Poacynum lancifolium</i> (<i>Trachomitum lancifolium</i>)	perennial	100-150	R	+	flowering
<i>Polygonum argyrocoleon</i>	annual	25-30	O	+	Flowering, fruiting
<i>Populus afghanica</i>	tree	6-7 m	O	2	vegetation
<i>Sisymbrium altissimum</i>	annual	30-40	F	1	Flowering, fruiting
<i>Sophora pachycarpa</i>	perennial	20-25	O	+	vegetation
<i>Tamarix hohenackeri</i>	shrub	150-180	R	+	flowering
<i>Torilis arvensis</i>	annual	25-30	O	+	Flowering, fruiting
<i>Typha angustifolia</i>	perennial	100-150	O	+	vegetation
<i>Typha laxmannii</i>	perennial	100-150	O	+	vegetation
<i>Ulmus pumila</i>	tree	5-6 m	O	2	Flowering

Veronica hederifolia	annual	10-12	F	1	Flowering, fruiting
Veronica polita	annual	10-12	O	+	Flowering, fruiting
Veronica persica	annual	10-12	F	1	Flowering, fruiting
Xanthium spinosum	annual	25-30	O	+	vegetation
Xanthium orientale	annual	15-20	O	+	vegetation



Contact Us

Phone: +998 78 202 0440

Email: info@juru.org

Website: www.juru.org

REPTILE REPORT (Summer 2023 & Spring 2024)

**Environmental and Social Impact Assessment (ESIA) for the
development of a solar power project in Samarkand Region,
Uzbekistan**

5 Capitals Environmental and Management Consulting



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1. Introduction

In accordance with the Resolutions of the President of the Republic of Uzbekistan No. PP-207 dated July 4, 2023, "On measures for the implementation of the investment project 'Construction of a 500 MW Solar Photovoltaic Power Station, a 334 MW Electric Energy Storage System, and a Substation to support its operation in the Nurabad District of the Samarkand Region - Sazagan Solar 1,'" and No. PP-208 dated July 4, 2023, "On measures for the implementation of the investment project 'Construction of a 500 MW Solar Photovoltaic Power Station, a 334 MW Electric Energy Storage System, and a Substation to support its operation in the Nurabad District of the Samarkand Region - Sazagan Solar 2,'" investment agreements were signed on April 19, 2023, between the Ministry of Investments, Industry, and Trade of the Republic of Uzbekistan, the company "ACWA Power Company" (Investor), and the companies "ACWA Power Sazagan Solar 1" and "ACWA Power Sazagan Solar 2" (hereinafter referred to as the "Project Companies") (Figure 1).

Under the aforementioned investment agreements, the Project Companies are implementing the projects "Sazagan Solar 1" and "Sazagan Solar 2," within which three solar photovoltaic power stations with a total capacity of 1000 MW and a substation with a capacity of 500/220 kV will be constructed in the Nurabad District of the Samarkand Region. Additionally, two energy storage systems will be built - one in the Nurabad District of the Samarkand Region and another in the Karakul District of the Bukhara Region. Furthermore, two parallel overhead power transmission lines with a voltage of 220 kV and a length of 70 km will be constructed to connect the main project facilities. 360 km overhead transmission line will also connect stations located in Samarkand region with the Khalka substation, located in Tashkent region.

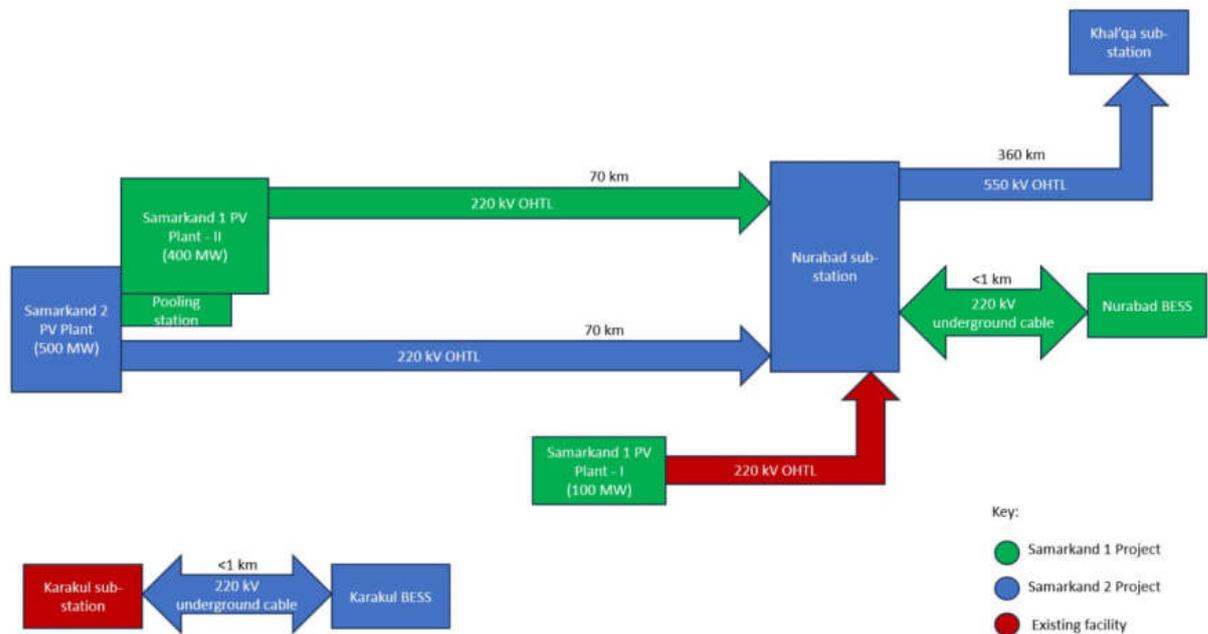


Figure 1: The project scheme

The report presents data and materials of field and desktop herpetofauna survey conducted in June 2023 and April 2024

2. Study Area Description

The research zone encompasses sections of Quyi Chirchiq District in the Tashkent Region, as well as Syrdarya, Mirzaabad, Akaltyn, and Sardoba Districts in the Syrdarya Region. It also includes Dustlik, Pakhtakor, Sharaf-Rashidov, and Gallaaral Districts in the Dzhizak (Jizzakh) Region, along with Bulungur, Jomboy, Payariq, Akdarya, Pastdargom, and Nurabad Districts in the Samarkand Region, as well as Karakul District in the Bukhara Region (Figure 2).



Figure 2: UZB-ACWA-Samarkand Solar 1 and Solar 2 & OHTL ESIA Project area

Project consists of the following parts:

- 1) Khalka substation and 360 km 550 kV OHTL
- 2) Nurabad substation and access road 5320 m
- 3) Nurabad BESS
- 4) Solar 100 MW PV plant and access road 70 m
- 5) Solar 400 MW PV plant, pooling station and access road 696 m
- 6) Solar 500 MW PV plant
- 7) Karakul BESS and access road
- 8) 70km OHTL (Nurabad SS – Pooling station)
- 9) LILO 11 km
- 10) LILO 19 km

2.1 Khalka substation and 360 km 550 kV OHTL

The Khalka substation is located approximately 21 km south of Tashkent city (Figure 3) 21 kilometers south of Dustobod town (formerly known as Soldatsky and the center of the Quyi Chirchiq District), roughly 2.5 kilometers east of Mevazor village (formerly known as Rozhdestvensky), and about 3.5 kilometers east of the Chirchiq River. The Khalka substation area falls within the Chinaz region of the Middle Syrdarya district in the Turan province.

The overhead transmission line 360km (OHTL) (Figure 3) traverses through the Quyi Chirchiq District in the Tashkent Region, as well as the Syrdarya, Mirzaabad, Akaltyn, and Sardoba Districts within the Syrdarya Region. It also extends through Dustlik, Pakhtakor, Sharaf-Rashidov, and Gallaaral Districts

in the Jizzakh (Dzhizak) Region, and continues through Bulungur, Jomboy, Payariq, Akdarya, Pastdargom, and Nurabad Districts in the Samarkand Region.

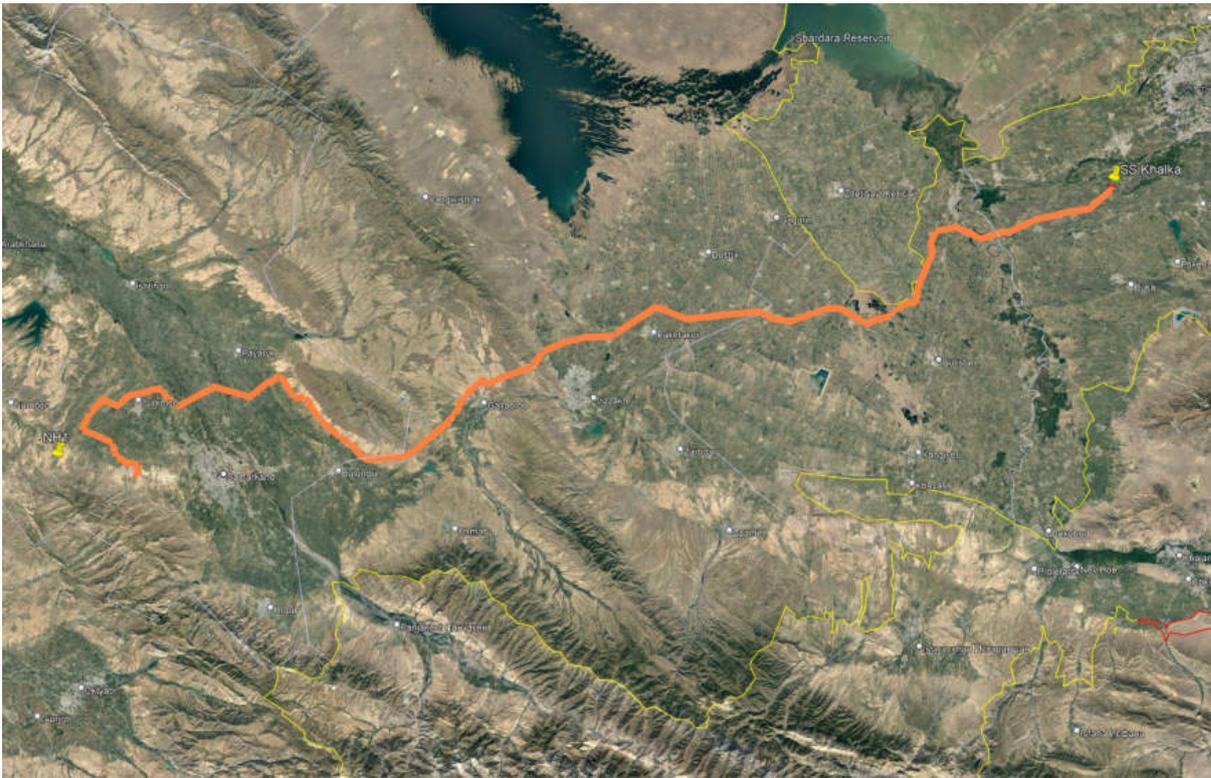


Figure 3: Khalka substation and 360 km 550 kV OHTL

2.2 Nurabad substation and access road, Nurabad BESS, Solar 100 MW PV plant, Solar 400 MW PV plant and pooling station, Solar 500 MW PV plant, Nurabad SS – Pooling station – 70km OHTL

These Project areas are situated in the Samarkand Region which is situated in the central part of Uzbekistan, within the Zeravshan River basin, specifically in its central portion. This region covers an area of approximately 16.77 thousand km², is home to around 4.1 million residents, and boasts an average population density of 245.6 individuals per km². Geographically, the region comprises both flat and mountainous terrain. The plains are found at the heart of the region (in the Zeravshan valley) and in the southwest (the foothill plains of the Zeravshan Range, including Karnabchul).

To the north, the Zeravshan valley is bounded by the Nuratau mountains, while the southern boundary includes the Zeravshan Range and its western extensions, the Zirabulak-Ziadin mountains. The Samarkand oasis, located in the middle stretches of the Zeravshan River, stands as one of Central Asia's oldest agricultural oases, featuring highly valuable agricultural lands and some of Uzbekistan's most fertile soils.

Presently, nearly the entire Zeravshan valley has been transformed into a human-altered landscape, with only small remnants of floodplain ecosystems remaining. The Karnabchul landscape (western foothill plain) and the northern foothill plain of the Zeravshan Range and Nuratau Mountains are characterized by a semidesert environment with mostly flat or slightly sloped, undulating, or gently hilly terrain, interspersed with dry riverbeds from seasonal streams.



Figure 4: 500/220 KV Nurabad substation



Figure 5: Nurabad 500 MW Bess.



Figure 6: Solar 100 MW PV plant



Figure 7: Access road 70 m



Figure 8: Solar 400 MW PV plant and Pooling station

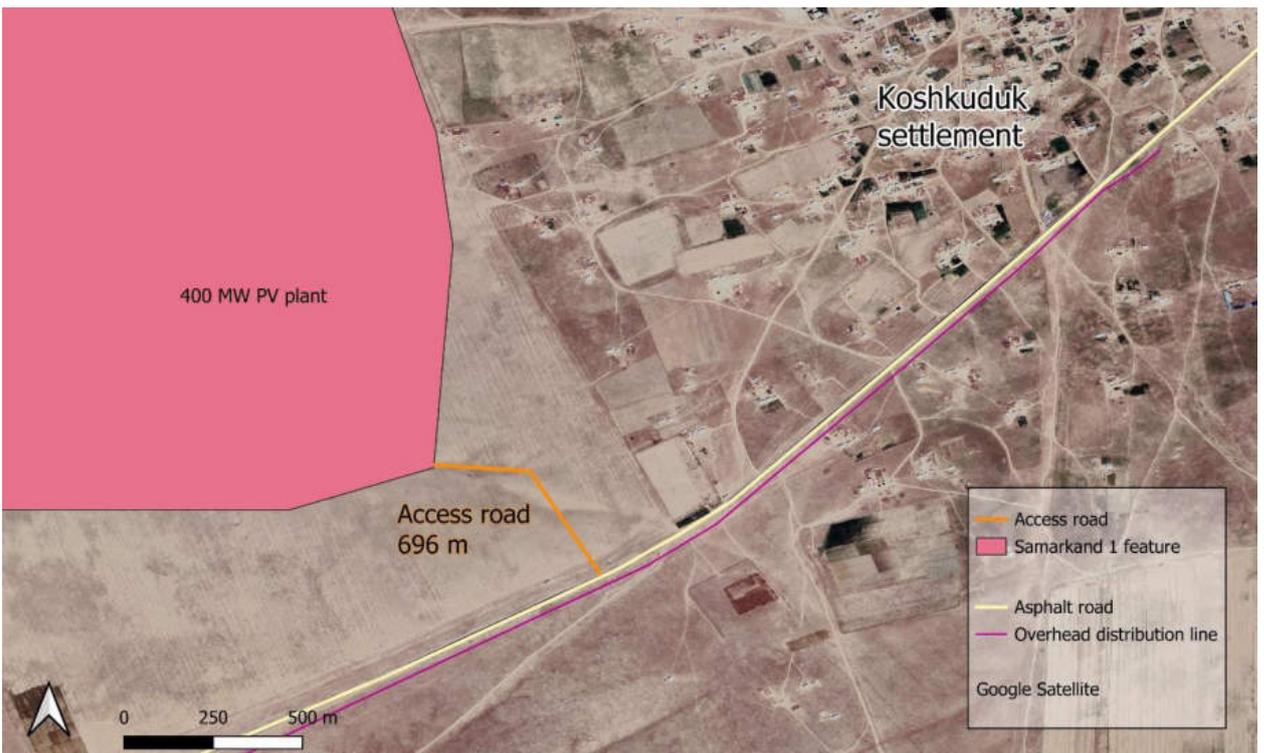


Figure 9: Access road 696 m



Figure 10: Solar 500 MW PV plant



Figure 11: Nurabad SS – Pooling station – 70 km OHTL

2.3 Karakul BESS, underground cable and access road

Karakul substation area belongs to Lower Zeravschan region of Bukhara district of Turan province. The project area includes a landfill for BESS with an area of 32.4 hectares and an access road 1735 m long.

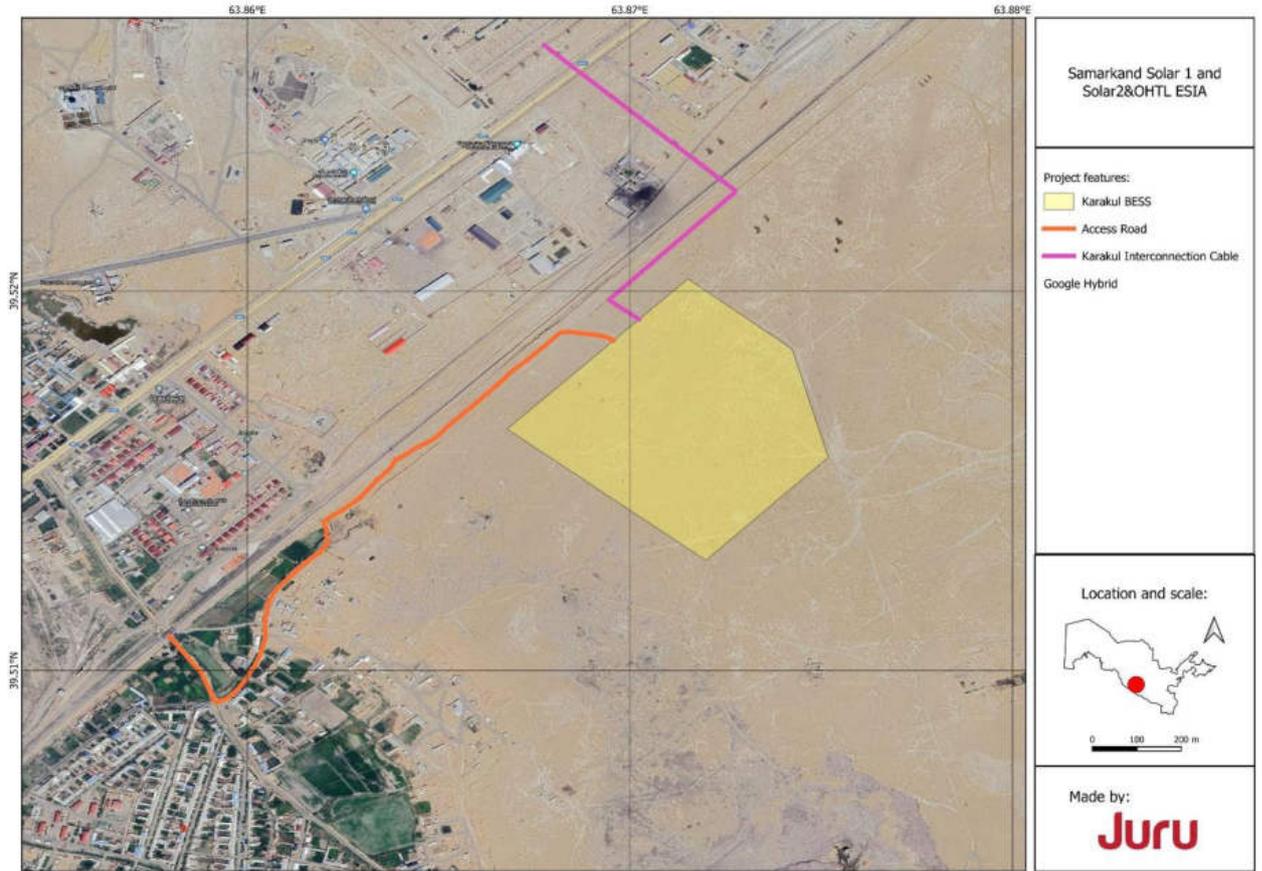


Figure 12: Karakul BESS

The polygon is a plain composed of sandy and sandy loam soils, with sparse shrub vegetation (Figure 13). From the point of view of economic use, the territory of the landfill is a wasteland with a garbage dump in the eastern part. Presumably, due to the burning of waste in the landfill with rising warm currents, plastic bags are occasionally lifted into the air and deposited in the project area (Figure 14).



Figure 13: Karakul BESS site

In addition to plastic bags, various household garbage and animal carcasses (cattle bones) are scattered throughout the area (Figure 15, Figure 16).



Figure 15: Cattle bones



Figure 16: Household garbage

2.4 LILO 11 km, LILO 19 km



Figure 17: Red line - LILO 11 km, purple line - LILO 19 km, polygon - Nurabad substation.

These habitats represent highly human-modified landscapes. Most of the territory is occupied by agricultural fields, dissected by fences.



Figure 18: The overview of the arable lands along planned LILO11 km

Proposed LILO 11 km crosses two small temporary streams originating from the mountains and significantly increasing their flow during the spring period. Heavy machinery operates on both watercourses, and the riverbeds have been artificially altered and heavily degraded.



Figure 19: The overview of stream and its riverbed



Figure 20: Arable land

3. Materials and methods

During the field survey an attempt was made to assess the status of reptiles and amphibians in the study area (specification of the species and quantitative composition, territorial distribution, including

places of concentration, the state of habitats). However, it should be noted that, the combination of field survey and desktop analysis was used.

Field studies were carried out according to generally accepted zoological methods for identifying species composition. The following methodological guidelines were used in the survey: L. G. Dinesman, M. L. Kaletskaya (1952)¹, V. M. Makeev, A. T. Bozhansky (1988)², D.A. Bondarenko, N.G. Chelintsev (1996)³. Literature sources and statistical data had been processed.

The main research method used was mixed stationary and transect survey. Points and transects for conducting research were outlined at the project monitoring stations in accordance with different types of habitats.

The field research methodology reflects the following aspects:

- 1) species composition in the study area;
- 2) distribution across habitats.

Thus, the method of quantitative assessment was based on the ecology of the species under consideration, landscape and geographical conditions, season and type of work.

The quantitative assessment of reptiles and amphibians was mainly based on the transect survey. The transect method consists in counting individuals along a fixed long line (transect), on both sides of it, with the duration of the survey determined by the known distance, which is selected depending on the type of reptile and the area, but does not exceed 1 km in one way. In this case, all individuals encountered on the transect are registered, regardless of the distance they are identified at. The perpendicular distance is measured between the transect axis and each individual. The results obtained are used to calculate the density of recorded reptiles. The 1 km transect was chosen because heaviest errors arise when long transects are used for species that, like the Central Asian Tortoise, have high density, daily and seasonal activity cycles fluctuations with high peak values, and are caused by incorrect selection of a minimum survey area for a particular species (Vashetko et al, 2001).

The Central Asian tortoise population density (D) was calculated using the following formula:

$$D = \frac{n}{2LB}$$

where n – number of animal individuals recorded on the transect; L – length of the transect; B – formula to calculate an effective width of the survey strip:

$$B = W(0,79F + 0,21F^4)$$

where W – width of the limited strip on both sides of the transect axis; F :

$$F = \frac{2y}{W}$$

The use of perpendicular distances to carry out survey on a strip of limited width excludes underestimation of the population density of the Central Asian tortoise caused by a decrease in their detectability in remote parts of the survey strip, regardless of the degree of its limitation.

The abundance of the reptiles in habitats was estimated using the following population density scale for 1 ha (Kuzyakin, 1962⁴): 0.1 – 0.9 – rare, 1.0 – 9.9 – common, 10.0 and higher – abundant.

¹ Dinesman L.T., Kaletskaya M.L. Methods of counting the number and geographical distribution of terrestrial vertebrates. Moscow: AN USSR, 1952 [in Russian]

² Makeev V.M., Bozhansky A.T., (1988). Some results herpetological inspections East Turkmenistan /Rare and little-studied animals of Turkmenistan. Ashgabat. Ylym. (in Russian).

³ Bondarenko D.A., Chelintsev N.G. 1996. A comparative estimation of different methods of the line transect census of desert reptiles. Bulletin of Moscow Society of Naturalists, Biological series, 1996, vol.101, iss.3., pp. 26-35 (in Russian)

⁴ Kuzyakin A.P. 1962. Zoogeography of the USSR. Scientific notes of the Moscow regional pedagogical institute. 109: 9-182 pp.

Data presented in this report based on surveys conducted in June and September 2023 (main and associated facilities), and March 2024 (Karakul BESS, LILO 11, access roads) and April 2024 (main facilities), May 2024 (.

3. Survey points and transects

3.1 Nurabad Substation and access road 5320 m, Nurabad Bess, Solar 100 MW PV

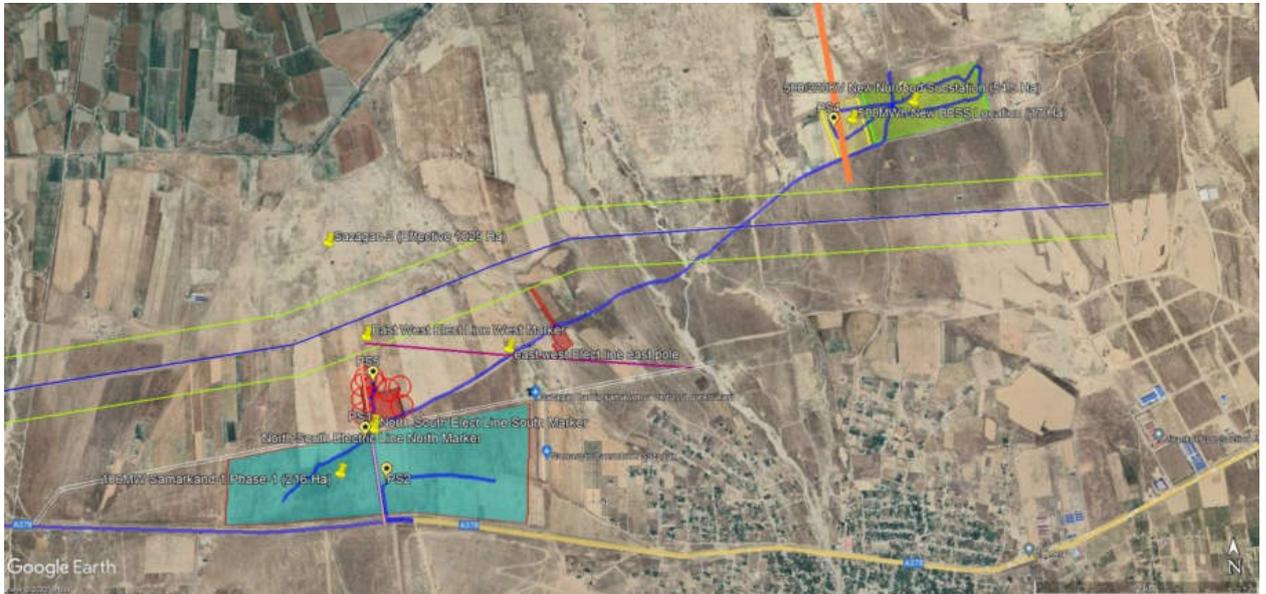


Figure 21: Survey map including survey points and transects on Nurabad Substation, Nurabad Bess, Solar 100 MW PV (June 2023).



Figure 22: Survey map including survey points and transects on Nurabad Substation, Nurabad BESS (March 2024).



Figure 23: Access Road 5320 m. Orange line – access road, brown line – track 5.04.2024, violet polygon – Nurabad substation (March 2024).

Table 1: Survey points on Nurabad Substation, Nurabad Bess, Solar 100 MW PV (June 2023)

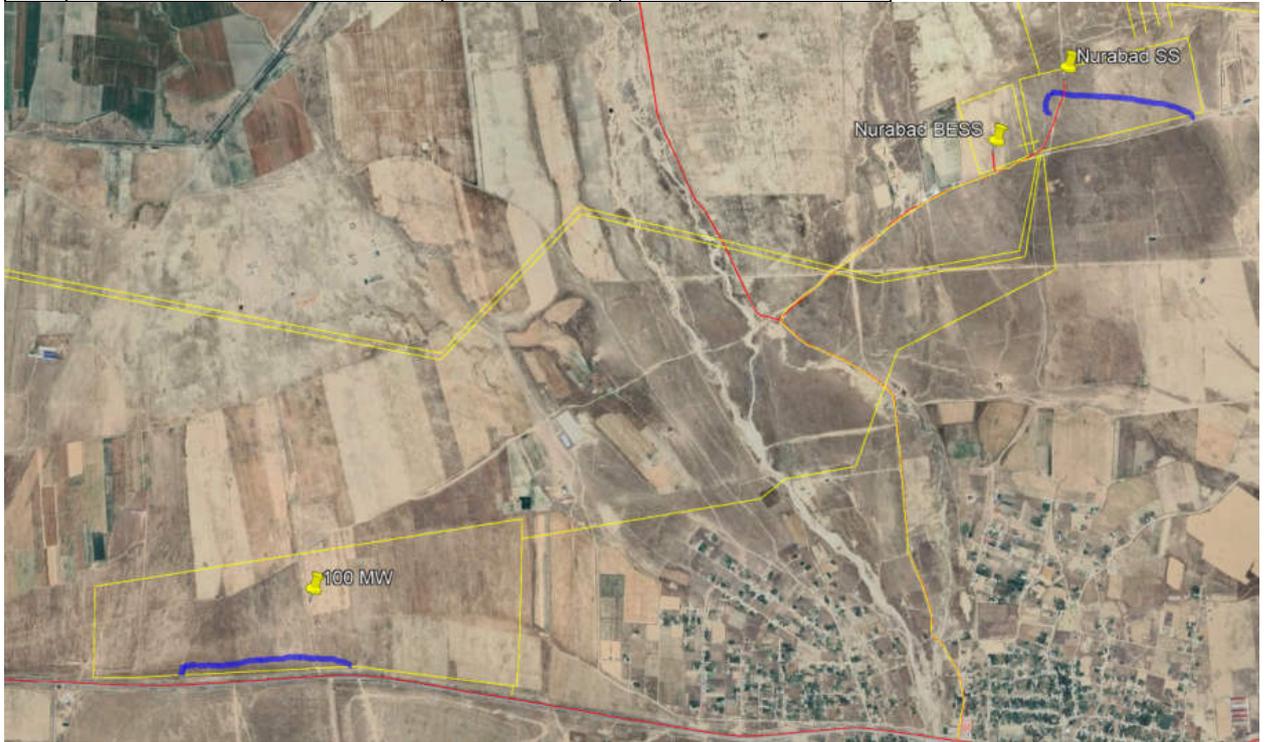
No	Name of point	Date and time	N (dd format)	E (dd format)	Biotope	t air °C	t soil, °C	humidity, %
1	PS-1	28/06/23	39.549109°	66.685559°	Deposited lands	34,3	37,2	22
2	PS-2	28/06/23	39.545677°	66.687853°	Deposited lands	34,7	40,3	21
3	PS-3	28/06/23	39.576767°	66.744959°	Deposited lands	34,9	42,8	21
4	PS-4	28/06/23	39.574226°	66.737152°	Agricultural fields	35,3	44,6	20
5	PS-5	28/06/23	39.553687°	66.686383°	Agricultural fields	35,6	47,2	20

Table 2: Survey transect on Nurabad Substation, Nurabad Bess, Solar 100 MW PV (June 2023).

No	Name of transect	Date and time	Length	Biotope	t air °C	t soil, °C	humidity, %
1	PS-1	28/06/23	1 km	Deposited lands	34,3	37,2	22
2	PS-2	28/06/23	1 km	Deposited lands	34,7	40,3	21
3	PS-3	28/06/23	2 km	Deposited lands	34,9	42,8	21
4	PS-4	28/06/23	1 km	Agricultural fields	35,3	44,6	20
5	PS-5	28/06/23	1 km	Agricultural fields	35,6	47,2	20

Table 3: Point counts on Nurabad Substation, Nurabad Bess (March 2024).

No	Point	Date and time	Biotope
1	Nurobod BESS	11/03/24	Deposited lands
2	Nurobod SS	11/03/24	Deposited lands



No	Name of transect	Date and time	Begin of transect N, E (dd format)	End of transect N, E (dd format)	Length, km	Biotope
1	100 MW_2024-05-14 15:50_1.2km	14/05/2024	39.543198 66.690427	39.542679 66.677598	1.2	Fallow land
2	Nurabad SS_ 2024-05-14 15:22_1.12km	14/05/2024	39.575297 66.742706	39.575114 66.753605	1.12	Fallow land

Table 4: Transect counts on Nurabad Substation, Nurabad Bess and Solar 100 MW (14 May 2024).3.2 Solar 400 MW PV and access road 696 m, Solar 500 MW PV and pooling station



Figure 24: Survey map including survey points and transects on Solar 400 MW PV, Solar 500 MW PV and pooling station (June 2023).

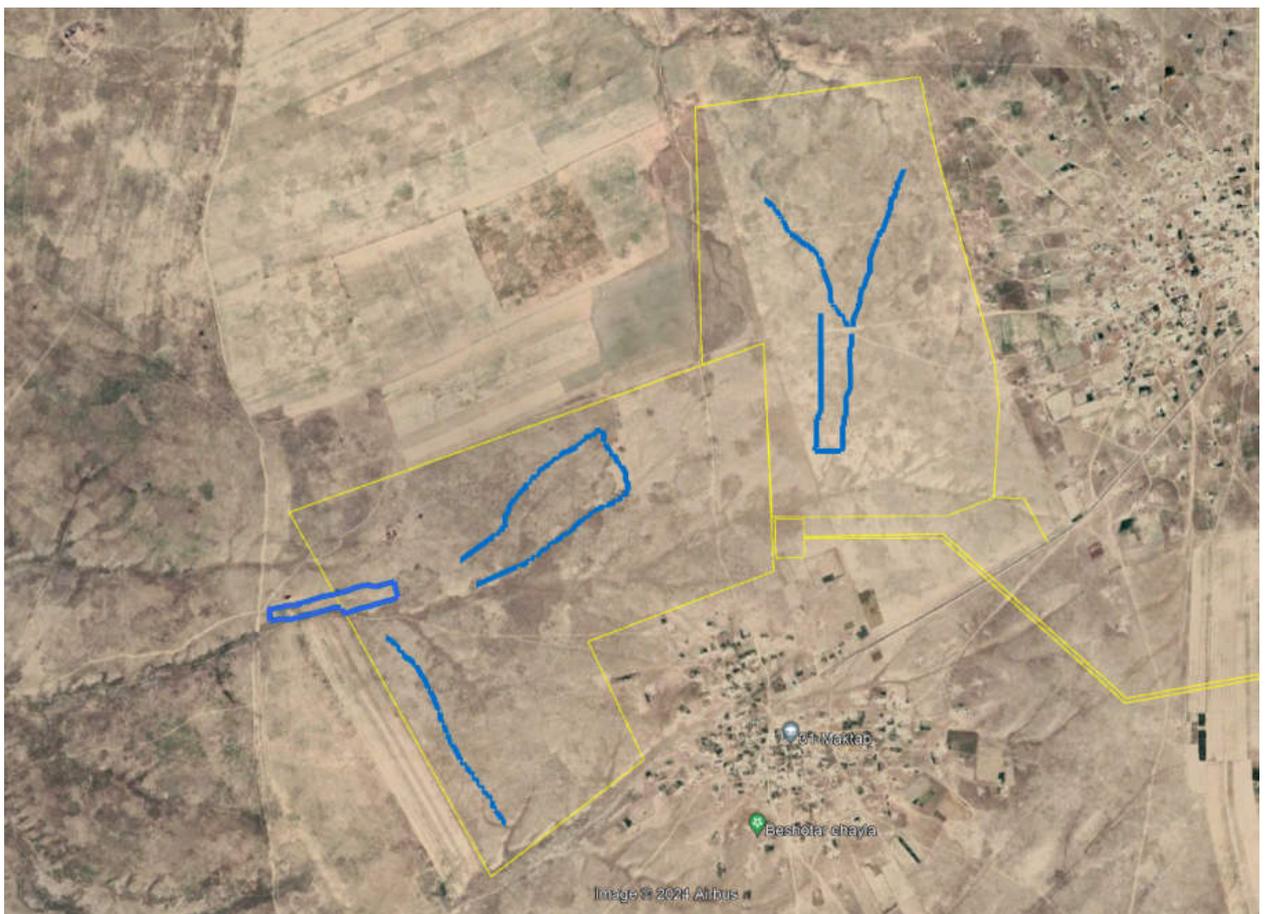


Figure 25: Survey map including survey points and transects on Solar 400 MW PV, Solar 500 MW PV and pooling station (April 2024).

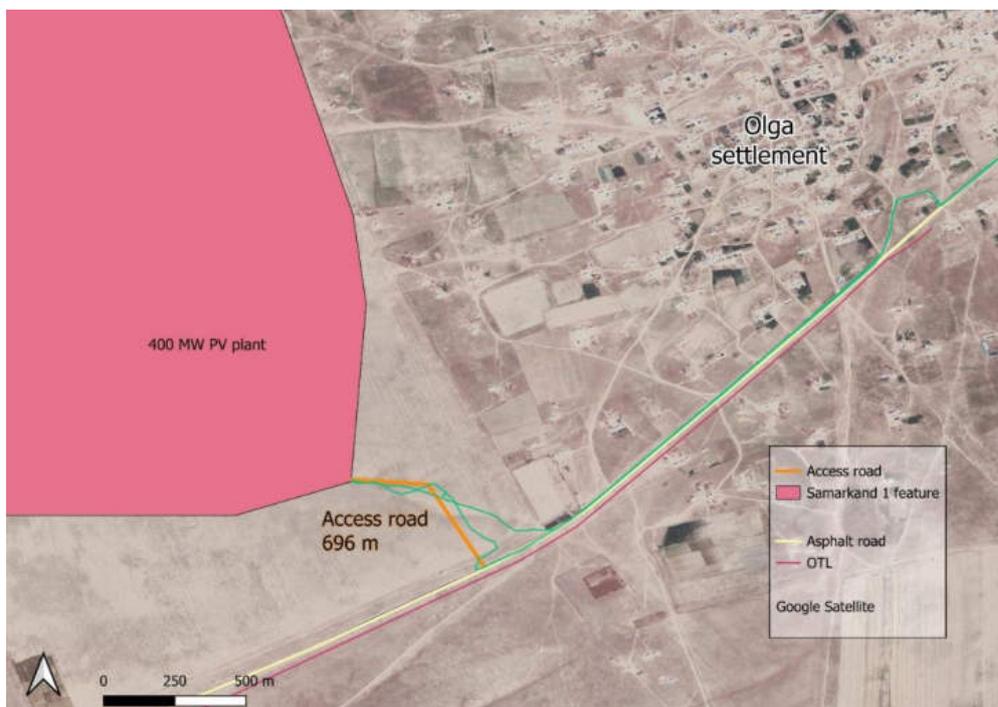


Figure 26: Survey map of the access road (March 2024)

Table 5: Survey points on Solar 400 MW PV, Solar 500 MW PV and pooling station.

No	Name of point	Date and time	N (dd format)	E(dd format)	Biotope	t air °C	t soil, °C	humidity, %
1	P-1	27/06/23	39.443530°	65.977999°	Deposited lands	33,7	41,4	21
2	P-2	27/06/23	39.444009°	65.987181°	Deposited lands	33,5	40,6	21
3	P-3	27/06/23	39.426815°	65.966046°	Gravelly-clay plain	33,4	41,7	21
4	P-4	27/06/23	39.427411°	65.933010°	Gravelly-clay plain	31,2	38,6	22
5	P-5	27/06/23	39.419400°	65.944827°	Gravelly-clay plain	30,8	37,3	22

Table 6: Survey transect on Solar 400 MW PV, Solar 500 MW PV and pooling station (June 2023).

No	Name of transect	Date and time	Length	Biotope	t air °C	t soil, °C	humidity, %
1	P-1	27/06/23	5 km	Deposited lands	34,7	46,4	20
2	P-2	27/06/23	3,6 km	Deposited lands	33,5	40,6	21
3	P-3	27/06/23	2 km	Gravelly-clay plain	33,4	41,7	21
4	P-4	27/06/23	2,6 km	Gravelly-clay plain	31,2	38,6	22
5	P-5	27/06/23	4 km	Gravelly-clay plain	30,8	37,3	22