



# Handbook on Growing GREENS in CPWD



Directorate of Horticulture
Central Public Works Department
Ministry of Urban Development
Government of India

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#### **FOREWORD**



he requirement of natural greens is always felt in the developing scenario of the country and it has become very essential that the green spaces should be added to cover the grey looking towns and cities. It is not only improving the aesthetic value but also providing fresh air and healthy environment in the town and cities. It is also adding greenery, colours and attracting the human beings as well as birds and animals, therefore, helping in maintaining ecosystem and food chain.

The Government agencies have done a lot in providing green cover to the cities and developing parks, green belts etc. and are still in the job to do their best. The Horticulture Wing of CPWD is the only organization of Government of India specialized in the field of ornamental gardening and working for the nation since more than a century. The great experience is being shared in this book in the form of some information on trees, parks, winter seasonal flowers, bonsai and other specialized activities of CPWD in Floral Works with some guidelines issued by Government of India and Government of GNCTD which will be very useful for the persons working in this field.



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बी. के. गुप्ता महानिवेशक V. K. Gupta Director General



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#### MESSAGE

It is a great pleasure for me to note that Directorate of Horticulture, CPWD is publishing "HAND BOOK ON GROWING GREENS IN CPWD" on the occasion of 159<sup>th</sup> CPWD Day. It is touching various aspects of gardening including Trees. Flowers, Bonsai and latest designs of floral decorations etc. I am confident that this book will certainly create increased awareness amongst the horticulturists, professionals and garden amateurs and public at large. It will also create awareness through exchange of ideas, knowledge, experiences among each other in the field of Horticultural and Ornamental gardening.

I convey my heartiest congratulations to the Directorate of Horticulture, CPWD for bringing out this book.

With best wishes

Er. V.K. Gupta



## **Acknowledgement**

I on behalf of the Director General, officers and staff of CPWD, I would like to record our sincere thanks to those who have contributed to this publication on the occasion of "159th CPWD Day" held on 12th July, 2013.

I extend my special thanks to Sh. Gajender Singh, DD, HD-II, Sh. Charat Kumar, DD, HD-III and Smt. Veena Vilas Kantute, DD (HQ) for providing the required input during this publication.

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In the last but not the least I also extend my thanks to all those who have contributed either directly or indirectly, whose names have not been mentioned but their efforts are also acknowledged.

(Dr. P.K. Tripathi)

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#### RARE TREES IN CPWD LOCATIONS

#### 1. Maha Bodhi Tree (Ficus religiosa)

A Bal – Boudh Tree was planted in the Budha Jayanti Park by the then Prime Minister Shri. Lal Bahadur Shastri on 25.10.1964, which was presented by Her Highness Sri Mao BhandarNayake the then Prime Minister of Sri Lanka. A sapling was planted in this park which was taken from the Holy Bodh Tree in Sri Lanka. It was during the 3rd century when Princess Sanghamitra who was King Ashoka's daughter took a sapling from the ancient original Bodh Tree situated in Bihar believed to be the tree under which lord Buddha spent days during his meditation period up till he attained Nirvana or Enlightenment and hence is considered very Holy and Sacred to all and carried it to Sri Lanka where she planted, nurtured and attended to it with love and care up till it grew very tall, thick and green. It was also known that she used to preach Buddhism under this very tree which exists even today.

A small temple beneath the Bodhi tree, Bodh Gaya, built in 7th century, after the original built by King Ashoka in 3rd century BCE, c. 1810 The spot was used as a shrine even in the lifetime of the Buddha. King Asoka was most diligent in paying homage to the Bodhi tree, and held a festival every year in its honour in the month of Kattika. His queen, Tissarakkhā was jealous of the Tree, and three years after she became queen (i.e., in the nineteenth year of Asoka's reign), she caused the tree to be killed by means of mandu thorns. The tree, however,



MAHA BODHI TREE AT BUDHA JAYANTI PARK

grew again, and a great monastery was attached to the Bodhimanda called the Bodhimanda Vihara. Among those present at the foundation of the Mahā Thūpa are mentioned thirty thousand monks from the Bodhimanda Vihara, led by Cittagutta.

#### 2. Makhan Katori (Ficus krishnae)

A small tree with folded leaves joined at the base which appear like containers of icecream (kulphis). The legend is that Krishna used to store butter in the leaves.

Propagated from seed, as a curiosity, it should be grown in all public parks and gardens. FicusKrishnae Tree, or Krishna Fig Tree, is known as Makhan Katori or Krishna Badh in local languages. The leaf of the tree is in the shape of a cup — Krishna's Butter Cup. There is an interesting story which narrates how the leaves of the tree got the shape of a leaf. It is said that in the beginning, the leaves of Krishna Fig tree were straight and it did not have the cup shape. A naughty episode of Krishna was responsible for the leaves taking cup shape. Krishna's love for butter is very famous and equally famous is his notorious ways of stealing it from the houses n Vrindavan. Once while stealing butter Krishna was caught red-handed by Mata Yashoda. To escape from her punishment, Krishna rolled the butter in a leaf of Ficus Krishnae. The leaves of Krishna Fig took the shape of a cup after this incident - ever since it remained in the same shape as Krishna had rolled it.



LEAF OF FICUS KRISHNA BUTTER
CUP TREE



FICUS KRISHNAE TREE AT BUDHA JAYANTI PARK

#### 3. Kalapvriksh (Adansonia digitata)

Kalapvriksh (Adansonia digitata) is a genus of eight species of tree, six native to Madagascar, one native to mainland Africa and the Arabian Peninsula and one to Australia. The mainland

African species also occurs on Madagascar, but it is not a native of that island, and was introduced in ancient times to south Asia and during the colonial era to the Caribbean. A ninth species was identified in 2012, incorporating upland populations of southern and



KALAPVRIKSHA AT BUDHA JAYANTI PARK



KALAPVRIKSHA AT RAJ GHAT

eastern Africa. A typical common name is baobab. Other common names include boab, boaboa, tabaldi, bottle tree, upside-down tree, and monkey bread tree. The generic name honours Michel Adanson, the French naturalist and explorer who described Adansonia digitata. Adansonias reach heights of 5 to 30

m (16 to 98 ft) and have trunk diameters of 7 to 11 m (23 to 36 ft). Glencoe baobab – an African baobab specimen in Limpopo Province, South Africa, often considered the largest example alive – up to recent times had a circumference of 47 m (154 ft). Its diameter is estimated at about 15.9 m (52 ft). Recently the tree split up into two parts and it is possible that the stoutest tree now is Sunland baobab, also in South Africa. The diameter of this tree is 10.64 m (34.9 ft), with an approximate circumference of 33.4 m (110 ft). Some baobabs are reputed to be many thousands of years old, which is difficult to verify, as the wood does not produce annual growth rings, though radiocarbon dating may be able to provide age data.

#### 4. Baheda(Terminalia belirica)

Baheda is a large deciduous tree found throughout India, in areas up to an altitude of 1,000 meters. The tree takes a height of 30 meters, while the bark is brownish grey in color. The alternate, broadly elliptic leaves are clustered towards the end of the branches. They are 10 to 12 cm in length and 7 to 14 cm in breadth. The simple, solitary flowers are in auxiliary spikes, with offensive odor. They blossom in the month of May. The fruits are ovoid grey drupes and the kernels are sweet, but narcotic. The tree is found in abundance in Madhya Pradesh, Uttar Pradesh, Punjab and Maharashtra. It is known as vibhitaki, karshaphala and kalidruma in Sanskrit and bahera in Hindi.

#### **Uses & Benefits of Baheda**

- Beleric is a rejuvenative and laxative. It proves beneficial for hair, throat and eyes.
- Beleric seed oil or fruit paste is applied on swollen and painful parts.
- The seed oil gives excellent results in skin diseases and premature graying of hair.
- Fruit pieces are baked and chewed for cough, cold, hoarseness of voice and asthma.
- Beleric fruit is powdered and used to dress wounds to arrest the bleeding.
- Beleric fruits and kernels are used in making medicated hair oil, used to alleviate pain and burning sensation, boost hair growth and impart black color to the hair.



ERMINALIA BELLIRICA AT BUDHA JAYANTI PARK

- The paste of the fruit is applied on eyelids, in case of conjunctivitis.
- The herb is used in various eye ailments, such as myopia, corneal opacity, pterigium, immature cataract, chronic and acute infective conditions.
- Beleric helps in loss of appetite, flatulence, thirst, piles and worms.
- The ripened fruit acts as an astringent and anti-diarrheal.
- The decoction of the kernels is used in case of excessive thirst and vomiting.
- Beleric plant alleviates cough, relieves blocked phlegm, controls bleeding in the sputum and eases bronchospasms.
- It prevents ageing, imparts longevity, boosts immunity, improves mental faculties and enhances the body resistance against diseases.
- It helps in lowering cholesterol and blood pressure.

## 5. Largerstroemia (Largerstroemia lancasterai)

Lagerstroemia, commonly known as Crepe Myrtle, is a genus of about 50 species of flowering shrubs and trees. Native to the Indian subcontinent, South Asia and Oceania, most species of Lagerstroemia are found in Pakistan, India, Bangladesh, China, Australia and parts of Central America.



LARGERSTROEMIA LANCASTERIAY AT RAJPATH

Lagerstroemia Lancasterai bears beautiful flowers of white colors in summer. In full bloom, bright green leaves and clusters of flowers make it an excellent choice as ornamental tree for homes and gardens. Lagerstroemia sheds its leaves in a gradual process so you would hardly find it completely bare. Flowers contain six or seven crumpled and wrinkled petals, that is why, Lagerstroemia is also called Crepe Flowers tree.

#### 6. Ficus (Ficus macdonald)

It is a gynodioecious (functionally dioecious), deciduous tree or large shrub, growing to a height of 6.9–10 metres (23–33 ft), with smooth white bark. Its fragrant leaves are 12–25 centimetres (4.7–9.8 in) long and 10–18 centimetres (3.9–7.1 in) across, and deeply lobed with three or five lobes. The complex inflorescence consists of a hollow fleshy structure called the syconium, which is lined with numerous unisexual flowers.

#### 7. Zaitoon (Olea europea)

Zaitoon tree is also known as olive tree and produces the gray green flowers in winter season. The plant of olive reaches the height of 3 meters, leaves are bright green and very attractive and the fruits are of bright bluish or violet color, possesses a metallic taste. It is known from old ages. During the excavation of ancient Egyptian graves, vessels full of olive oil were found with other articles. According to the scholars of Hadith, on subsidence of Toofan-E-Nooh (The Great Flood of Noah), when water level came down, the first thing on the earth that was seen was the olive plant.



FICUS MACDONALD AT RAJGHAT



OLEA EUROPEA (ZAITOON) AT RAJGHAT

#### 8. Cotton tree (Bombax ceiba)

Like other trees of the genus Bombax, is commonly known as cotton tree. This tropical tree has a straight tall trunk and its leaves are deciduous in winter. Red flowers with 5 petals appear in the spring before the new foliage. It produces a capsule which, when ripe, contains white fibres like cotton. Although its stout trunk suggests that it is useful for timber, its wood is too soft to be very useful. Bombax ceiba grows to an average of 20 meters, with old trees up to 60 meters in wet tropical weather. The leaves are palmate with about 6 leaflets radiating from a central point, an average of 7~10 centimeters wide, 13~15 centimeters in length. The leaf's long flexible petiole is up to 20 cm longer. Seeds are numerous, long, ovoid, black or gray in colour and packed in white cotton. The fruit, which reaches an average of 13 centimeters in length, is light-green in color in immature fruits, brown in mature fruits. This tree is widely planted in parks and on roadsides there because of its beautiful red flowers which bloom in



March/April. This tree is quite common in New Delhi. The cotton fibers of this tree can be seen floating in the wind around the time of early May. This tree shows two marked growth sprints in India- in spring and during the monsoon months. This tree is commonly known as Semal (Hindi:



BOMBAX CEIBA TREE AT 1 MOTI LAL NEHRU MARG

सेमल) This tree is also found in the eastern parts of Pakistan, especially in the eastern city of Lahore. The local Urdu and Punjabi name for the tree is 'Sumbal'. Plant pacifies vitiated pitta, wounds, ulcers, skin diseases, hemorrhoids, urinary calculus, cystitis, inflammations, cough, bronchitis and dark discolorations on face.

## 9. Swietenia (Swietenia senegalensis)

Swietenia senegalensis (Khaya, African Mahagony) It is tree with shining leaves upto 100ft tall. Leaves are compound drying pale glaucous green. Flowers normally

have four parts. Sepals are pale green, petals and stamina tube are cream colored, fruit is normally very much valuable.

#### 10. Khirk (Celtis terandra)

A medium sized tree up to 30m height. Leaves simple, alternate, obliquely ovate. Margin, serrate from apex to below. Flowers polygamous, yellow born on leafless shoots. Fruit is hard when dry, edible bitter to taste. Flowering from January to March. Fruiting from Feb. to April a medium sized tree.



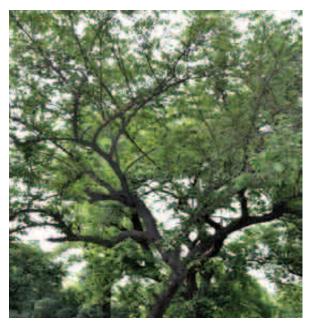
SWIETENIA SENEGALENSIS TREE AT GOVT. SUNDER NURSERY



CELTIS TETRANDRA AT GOVT. SUNDER NURSERY

#### 11. Guazuma (Guazuma ulmifolia)

It is small to medium size tree upto 30m height and 30 to 40 cm in diameter. Leaves are in alternates pattern, ovate, finely saw toothed margin with darker green upper surface and pale green below. The flowers come in panicles and are short stalked, have brown yellow color and are lightly fragrant. The fruits, which are capsules, have many seeds.



GUAZUMA ULMIFLOIA TREE AT GOVT SUNDER NURSERY



AGATHIS ROBUSTA TREE AT GOVT.
SUNDER NURSERY

#### 12. Kauri Pine (Agathis robusta)

It is a large evergreen trees growing straight. Height 30 to 50m with smooth scaly bark. The

leaves are broad, tough and leathery in texture. The seed cones are globose and mature in 18-20 months after pollination. They disintegrate at maturity to release the seeds. The male cones are cylindrical.

#### 13. Swietenia (Swietenia mahagoni)

It is a tall tree 30 m height upto 1 m dia and large spherical crown, dense shade. The bark is reddish brown on large trees. Leaves are shiny dark green, lance shaped, flowers greenish yellow. The light brown seeds capsule stands upright with 5 valves. Each valve releases about 20 flat brown winged seeds.

#### 14. Bolusanthus (Bolusanthus speciosus):

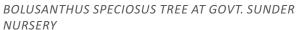
The tree is evergreen may drop leaves in winter. Leaves are lanceollate, shiny green above paler below. Fruit is flat thin light brown



SWIETENIA MAHAGONI TREE AT GOVT. SUNDER NURSERY

to grey, pod, from Sept. to January. The dark fissured bark drooping foliage and attractive flower. Low maintenance garden tree.







ATALANTIA MONOPHYLLA TREE AT GOVT.
SUNDER NURSERY

#### 15. Jangli Nimbu (Atalantia monophylla)

Indian atalantia is a small much branched tree with single sharp spines. Leaves are bright green above paler and reticulate-veined below, ovate or elliptical with margins slightly wavy. Flowers are long stalked in clusters. Fruit globose yellowish green when ripe.

#### 16. Potka Siris (Albizia lucidor)

It is a fast growing beautiful tree. The large compound leaves are unique. Flowers are clusters of small powder puff. Fruit pod is flat, dark brown. Flowering June to July.

#### 17. Khirk (Caesalpinia ferrea)

It is a beautiful tree with white and chocolates flaking bark thus called leopard tree. The tree is long, drooping branches with feathery leave. The flowers are yellow small fragrant. The wood is used for finger boards of electric basses, guitars, flooring, fancy furniture.



ALBIZIA LUCIDOR (POTKA SIRIS) TREE AT GOVT. SUNDER NURSERY



CAESALPINIA FERREA (KHIRK) TREE AT GOVT. SUNDER NURSERY

#### 18. Nag keshar or Nag Champa (Mesua ferrea)

A handsome Indian evergreen tree, of small to medium size upto 13m. Simple oblong green leaves, the emerging young leaves are red to yellowish pink. The flower are white with numerous yellow stamens. The flowers are used for making incense and used to stuff pillows. It is the national tree of Sri Lanka. The oil from seeds is used for treating sores, scabies, wounds and rheumatism. The root is used as an antidote for snake poison.



MESUA FERREA TREE (NAG KESHAR OR NAG CHAMPA AT GOVT. SUNDER NUSERY

#### 19. Kasai (Bridelia retusa)

Tree is indentified by rigid leathery leaves,

strong spines on the barks of young stems. Flowers are arranged on leafless branches appearing as spikes with small acute bract. Fruit is globose, fleshy, sweetish taste, size of a pea, purple black. Flowering May- August. The bark is used for the removal of urinary concretions in Ayurveda. Root and bark are valuable astringents.



BRIDELIA RETUSA TREE AT GOVT. SUNDER NURSERY



DILLENIA INDICA TREE AT GOVT. SUNDER NURSERY

#### 20. Elephant Apple (Dillenia indica)

Elephant Apple( Chalta) is small to medium sized tree upto 15m tall. The leaves are long with corrugated surface. The flowers are large with five white petals and yellow stamens. The fruit having seeds with edible pulp. The pulp is used in curries, Jam & Jellies.

#### 21. Tada (Pterospermum xylocarpum)

Trees are small 5-8 m tall. Leaves ovate, elliptic base uniquely cordate white wooly beneath glabrous above. Flower's white solitary, capsules pyriform seeds winged. Wood is used for furniture.



PTEROSPERMUM XYLOCARPUM (TADA)
TREE AT GOVT. SUNDER NURSERY

#### 22. Benteak (Largerstroemia microcarpa)

It is a deciduous tree. Grow upto 10-15m height. The bark is of ash color oppositely arranged leaves. White flowers are borne in large compound panicles. Seeds are winged . Flowers in May – June.







MARKHANIA LUTEA TREE AT GOVT. SUNDER
NURSERY

#### 23. Siala (Markhania Lutea)

The tree is 10-15m high having leaves 20-30cm in length. Bark light brown. Flowers are bright yellow trumpet shaped. Fruit is very long thin brown capsules borne in clusters, release winged transparent seeds.

#### 24. Bistendu (Diospyros Cordifolia)

Bistendu is a small deciduous tree with spiny trunk and spiny older branches. Leaves are elliptic lanceshaped, somewhat heart-shaped at the base and sharp or blunt at the tip. They are smooth above and velvety on the underside. Male and female flowers grow on separate trees. Male flowers are borne in 3-flowered clusters, and the female ones



BISTENDU (DIOSPYROS CORDIFOLIA) TREE AT VIJAY CHOWK

singly. Flowers are creamy white or greenish-white, tubular, with 4 petals which are curved back. Sepals are ovate, velvety. Stamens of male flowers are longer than the flower tube. Fruit is spherical, cherry sized, yellow when ripe. Flowering: March-April.

#### 25. Rudraksha (Elaeocarpus ganitrus)

Rudraksha grows in the area from the Gangetic Plain in foothills of the Himalayas to South-East Asia. Rudraksha seeds are covered by an outer shell of blue color when fully ripe, and for this reason are also known as blueberry beads. The blue colour is derived not from pigment but is structural. It is an evergreen tree that grows quickly. Rudraksha Tree starts bearing fruit in three to four years. As the tree matures, the roots buttress rising up narrowly near the trunk

and radiating out along the surface

of the ground.

The seeds show variation in the number of grooves on their surface, and are classified on the basis of the number of divisions that they have. Different qualities are attributed to the rudraksha based on the number of grooves, or 'faces' that it has. A common type has five divisions, and these are considered to be symbolic of the five faces of Shiva. It can only be worn with red string or a gold chain.

According to the Ayurvedic medical system, wearing Rudraksha can have a positive effect on the heart and nerves, and relieve you from stress, anxiety, depression, palpitations and lack of concentration. It is also known for its anti ageing effect, and electromagnetic and inductive properties. People with high blood pressure have been found have benefited from the use of Rudraksha seeds.



BRANCH OF RUDRAKSHA TREE RUDRAKSHA TREE AT 6 MOTI LAL NEHRU MARG

#### LIST OF TREES AT SOME CPWD LOCATIONS

#### 1. Trees at Ekta Sthal

The Campus of Ekta Sthal is 5.00 acres area which has 70 Nos. Trees of 13 different species. These include the following :

SL. No.	Botanical Name	प्रचलित नाम	Nos.	SI. No.	Botanical Name	प्रचलित नाम	Nos.
1	Azadirachta indica	नीम	01	8	Morus alba	शहतूत	01
2	Chukrasia tabularis	विकरासी	.01	9	Polyalthia longifolia	अशोक	07
3	Dalbergia sissoo	शीशम	01	10	Pterospermum acerifolium	कनक चम्पा	01
4	Ficus religiosa	पीपल	02	11	Parkinsonia aculeata	विलायती कीकर	02
5	Grevillea robusta	सिल्बर ओक	04	12	Schleichera trijuga	कुसुम	19
6.	Heterophragma adenophyllum	मरोड़ कली	01	13	Terminalia arjuna	अर्जुन	28
7	Melia azadirachta	बक्तम	02				

#### 2. Trees at Kishan Ghat

The Campus of Kisan Ghat is 8.84 acres area which has 255 Nos. Trees of 19 different species. These include the following:

SI. No.	Botanical Name	प्रचलित नाम	Nos.	SI.	Botanical Name	प्रचलित नाम	Nos
1	Acacia karroo	कीकर	01	11:	Ficus benjamina	वीपिंग फिग	36
2	Cordia myxa	लसूड़ा	02	12	Ficus bengalensis	बरगद	02
3	Choresia speciosa	सिल्क काटन द्री	07	13	Grevillea robusta	सिल्बर ओक	02
4	Cassia fistula	अमसतास	02	14	Mimusops elengi	मोलसिश	16
5	Dalbergia sisoo	शीशम	35	15	Morus alba	शहतूत	01
6	Eucalyptis citridora	सफेदा	80	16	Polyalthia longifolia	अशोक	.13
7	Eugenia jambolana	जामुन	04	17.	Plumeria alba	टेम्पल ट्री	18
8	Ficus infectoria	पिलखन	02	18	Roystonea regia	बोतल पाग	14
9	Ficus retusa	फाईकस रिदूसा	.02	19	Schleichera trijuga	कुसुम	16
10	Ficus religiosa	पीपल	04			0000	
						17	

#### 3. Trees at Raj Ghat

The Campus of Raj Ghat is 35.47 acres area which has 1056 Nos. Trees of 42 different species. These include the following:

SI. No.	Botanical Name	प्रचलित नाम	Nos.	SI. No.	Botanical Name	प्रचलिल नाम	Nos.
1	Anthocephalus cadamba	कदम्ब	38	22	Ficus infectoria:	पिलवन	05
2	Azadirachta indica	नीम	03	23	Grevillea robusta	सिल्बर ओक	18
3	Alstonia scholaris	हेविल द्वी	88	24	Ixora chinensis	ऐमजेश	01
4	Acacia auriculiformis	अकसिया	.01	25	Lagerstroemia flos reginae	प्राइड ऑफ इंडिया	34
5	Bombax Ceiba	संमल	17	26	Mangifera indica	आम	-11
6	Bauhinia purpurca	कसनार	02	27	Mimusops hexandra	खिरनी	10
7	Cassia fistula	अमलतास	36	28	Millettia ovalifolia	मिलदिया	129
8	Chorisia speciosa	सिल्क काटन ट्री	15	29	Melia azadirachta	वकैन	02
9	Callistemon lanceolatus	बोतल ब्रश	39	30	Morus alba	शहतूत	02
10	Crataeva religiosa	बर्गा	130	31	Mimusops elengi	मोलसिरी	15
11	Casuarina equisetifolia	बीफ बुढ ट्री	05	32	Plumeria acutifolia	पगोश	03
12	Dalbergia sissoo	शीशम	16	33	Populas species	पोपुलर	01
13	Diospyros embryopteris	रिवार इयोनी	02	34	Putranjiva roxburghii	पुलरेजीया	01
14	Eucalyptus citriodora	सफेदा	55	35	Polyalthia longifolia	अशाक	48
15	Eugenia jambolana	जामुन	10	36	Plumeria alba	टेम्पल ट्री	06
16	Elacocarpus ganitrus	रुद्रोध	01	37	Roystonea regia	बोतल पाम	108
17	Ficus bengalensis	बरगद	07	38	Spathodea campanulata	पिचकारी	10
18	Ficus benjamina	वीपिंग फिन	114	39	Schleichera trijuga	कुसुम	10
19	Ficus retusa	फाईकस रिट्रसा	10	40	Tectona grandis	टीक:	48
20	Ficus shiela	काईकस शीला	02	41	Terminalia arjuna	अर्जुन	04
21	Ficus religiosa	पीपल	16	42	Ziziphus jujuba	गर	01

#### 4. Trees at Samta Sthal

The Campus of Samta Sthal is 10.24 acres area which has 451 Nos. Trees of 34 different species. These include the following:-

SI. No.	Botanical Name	प्रचलित नाम	Nos.	SL No.	Botanical Name	प्रचलित नाम	Nos
1	Acacia species	कीकर	17	18	Ficus infectoria	पिलखन	07
2	Acacia auriculiformis	अकसिया	02	19	Ficus glomerata	गुलर	0.3
3	Albizia procera	सफंद सिरिस	06	20	Ficus benjamina	थीपिंग फिग	02
4	Ailanthus excelsa	उल्लू	17:	21	Kigelia pinnata	साराज द्री (बालम स्त्रीरा)	09
5	Azadirachta indica	नीम	09	22	Lagerstroemia flosreginae	प्राइड ऑफ इंडिया	06
6	Alstonia scholaris	डेविल ट्री	25	23	Mimusops elengi	मोलसिरी	12
7	Bombax Ceiba	संगल	59	24	Morus alba	शहतूत	47
8	Cassia fistula	अमलतास	63	25	Melia azadirachta	वकन	05
9	Cassia siamea	कसोद	01	26	Murraya koenijii	मीठा नीम (कडी पत्ता)	01
10	Cordia myxa	लसुडा	01	27	Mangifera indica	आम	03
11.	Callistemon lanceolatus	बोतल बुश	01	28	Psidium guajava	अगरूद	02
12	Dalbergia sisoo	शीशम	25	29	Pterospermum acerifolium	कनक चन्पा	01
13	Delonix regia	गुलमोशर	15	30	Polyalthia longifolia	अशोक	18
14	Eugenia jambolana	जामुन	15	31	Pongamia glabra	पापश्री	07
15	Erythrina indica	तोता	02	32	Putranjiva roxburghii	पुतरजीवा	01

#### 5. Trees at Sangharsh Sthal

The Campus of Sangharsh Sthal is 7.00 acres area which has 176 Nos. Trees of 31 different species. These include the following:-

SI.	Botanical Name	प्रचलित नाम	Nos.	SL No.	Botanical Name	ग्रचलित नाम	Nos
1	Azadirachta indica	नीम	02	17	Ficus regnold	फाइकस	01
2	Albizia proceru	सफंद सिरिस	01	18	Ficus benjamina	वीपिंग फिग	02
3	Alstonia scholaris	डेविल ट्री	01	19	Grevillea robusta	नित्वर ओवा	01
4	Aegle marmelos	बेल	02	20	Mimusops elengi	मोलसिरी	11
5	Albizia lebbeck	सिरिस	01	21	Morus afba	शहतूत	.08
6	Bombax Ceiba	संमल	04	22	Melia azadirachta	बक्रन	06
7	Cedrela toona	ह्य	13	23	Mangifera indica	आम	02
8:	Chorisia speciosa	सिल्क काटन ट्री	09	24	Plumeria alba	टेम्पल ट्री	05
9	Citrus species	नीवू प्रजाति	01	25	Polyalthia pendula	अशोक	08
10	Cassia nodosa	केसिया नोडोसा	01	26	Polyalthia longifolia	अशोक	04
11	Crataeva religiosa	बर्मा	01	27	Putranjiva roxburghii	पुतरंजीम	01
12	Dalbergia sissoo	शीशम	22	28	Pongamia glabra	पापडी	101
13	Eucalyptus citriodora	सफेदा	12	29	Roystonea regia	बोतल पाम	38
14	Eugenia jambolana	जामुन	02	30	Schleichera trijuga	कुसुम	04
15	Ficus religiosa	पीपल	10	31	Ziziphus jujuba	बेर	01
16	Ficus glomerata	मुलर	01				

#### 6. Trees at Shakti Sthal

The Campus of Shakti Sthal is 21.90 acres area which has 777 Nos. Trees of 41 different species. These include the following:-

SI. No	Botanical Name	प्रचलित नाम	Nos.	Sl. No.	Botanical Name	प्रचलित नाम	Nos.
1	Anthocephalus cadamba	कदम्ब	0.5	22	Ficus retusa	फाईकस रिट्स	02
2	Azadirachta indica	नीम	02	23	Ficus glomerata	गुलर	01
3	Aegle marmelos	बेल	28	24	Ficus infectoria	पिलखन	02
4	Acacia species	कीकर	01	25	Ficus mysorensis	मैसूर फिम	.01
5	Alstonia scholaris	डेविल ट्री	98	26	Grevillea robusta	सिल्बर ओक	07
6	Bauhinia alba	सफंद कचनार	06	27	Garcinia binucao	गरसिनिया	01
77	Bauhinia purpurea	कथनार	128	28	Morus alba	शहतूत	06
8	Cassia siamea	कसाद	69	29	Millettia ovalifolia	मिलेटिया	28
9	Cassia nodosa	मिक शावर ही	01	30	Mimusops elengi	मालसिरी	35
10	Cassia fistula	अमलतास	99	31	Nyctanthes arbor tristis	हारसिंगार	02
11	Colvillea racemosa	किलबिली	11	32	Plumeria alba	टेम्पल ट्री	18
12	Chorisia speciosa	सिल्क कॉटन ट्री	08	33	Plumeria acutifolia	पगोजा	22
13	Citrus species	नीयू प्रजाति	01	34	Peltophorum ferrugineum	पीला गुलमोहर	20
14	Caryota urens	फिश टेल पाम	30	:35	Pongamia glabra	पापडी	04
15:	Crataeva religiosa	बर्मा	07	36	Putranjiva roxburghii	पुतरजीवा	167
16	Cassia javanica	जावा	02	37	Schleichera trijuga	क्सुम	06
17	Erythrina indica	वांता	08	38	Spathodea campanulata	पिधकारी	10
18	Eugenia jambolana	जामुन	01	39	Tabebuia rosea	बसत रानी	04
19	Ficus benjamina	वीपिंग फिग	03	40	Tabebuia cristata	टेबूबिया	02
20	Ficus religiosa	पीपल	13	41	Tecoma argentia	टिकामला	32
21	Ficus bengalensis	बरगद	02				

#### 7. Trees at Shanti Van

The Campus of Shanti Van is 38.86 acres area which has 2776 Nos. Trees of 65 different species. These include the following:-

SI.	Botanical Name	प्रचलित नाग	Nos.	SI, No	Botanical Name	प्रचलित नाम	Nos.
1	Anthocephalus cadamba	कदम्ब	12	34	Ficus glomerata	गुलर	14
2	Azadirachta indica	नीम	10	35	Ficus nuda	फाइकस नुडा	03
3	Albizia lebbeck	सिरिस	70	36	Ficus infectoria	पिलसान	10
4	Albizia procera	सफेद सिरिस	09	37	Grevillea robusta	सिल्बर ओक	59
5	Acacia auriculiformis	अकेसिया	16	38	Heterophragma adenophyllum	मरोड फली	250
6	Ailanthus excelsa	उल्लू	12	39	Ziziphus jujuba	वर	04
7	Acucia species	कीकर	142	40	Kigelia pinnata	सासंज द्री (बालम खीरा)	21
8	Alstonia scholaris	डेविल ट्री	98	41	Livistona chinensis	हाधी पाम	06
9	Acacia modesta	फुलई	09	42	Lagerstroemia flos reginae	प्राच्छ आप इकिया	35
10	Bauhinia alba	सफेद कचनार	13	43	Mimusops elengi	मालासरा	19
11	Bauhinia purpurea	कचनार	16	44	Morus alba	शहतूत	11
12	Bombax malabaricum	सेमल	86	45	Millettia ovalifolia	मिलेटिया	69
13	Bassia latifolia	महुआ	05	46	Melia azadirachta	साहेम	14
14	Butea frondosa	立中	12	47	Mangifera indica	आम	02
15	Cassia siamea	कसोव	136	48	Nauclea cadamba	कदम्ब	11
16	Chukrasia tabularis	विकरासी	38	49	Plumeria acutifolia	पगोडा	09
17	Cassia fistula	अमलतास	357	50	Peltophorum ferrugineum	पीला गुलमाहर	0.2
18	Colvillea racemosa	किलबिली	13	51	Pongamia glabra	यापडी	15
19	Callistemon lanceolatus	बोत्तल दुश	115	52	Polyalthia longifolia	अशोक	186
20	Casuarina equisetifolia	बीफ वुड ट्री	67	53	Polyalthia pendula	अशोवः	41
21	Chorisia speciosa	सिल्क काटम ही	35	54	Putranjiva roxburghii	पुतरजीवा	05
22	Crataeva religiosa	वर्मा	69	55	Pterospermum acerifolium	कनक सम्पा	106
23	Cassia javanica	जाग	04	56	Roystonea regia	बोतल पाम	02
24	Cedrela toona	तून	04	57	Schleichera trijuga	कुसुम	16
25	Cordia myxa	लसूडा	.38	58	Sterculia foetida	पुन ट्री	00

#### 8. Trees at Veer Bhoomi

The Campus of Veer Bhoomi is 22.30 acres area which has 950 Nos. Trees of 54 different species. These include the following :

SI. No.	Botanical Name	प्रचलित नाम	Nos.	SI, No	Botanical Name	प्रचलित नाम	Nos
1	Anthocephalus cadamba	कदम्ब	12	28	Ficus bengalensis	वस्मद	16
2	Azadirachta indica	नीम	03	29	Ficus Krishnae	क्ष्मा द्री	II
3	Albizia lebbek	सिरिस	09	30	Ficus macdonald	फाईकस मेकडॉनाल्ड	01
4	Albizzia procera	सफंद सिरिस	03	31	Ficus infectoria	पिलस्बन	16
5	Alstonia scholaris	डेविल ट्री	22	32	Grevillea robusta	सिल्बर ओक	15
6	Acacia species	कीकर	17	33	Lagerstromia flosregina	प्राइड ऑफ इंडिया	02
7	Bauhinia alba	सफंद कचनार	02	34	Morus alba	शहतूत	10
8	Bauhnia purpurea	कथनार	04	35	Mimusops elengi	मोलसिश	04
9	Butea frondosa	दाक	25	36	Mimusops hexandra	खिरनी	06
10	Cassia siamea	कसोद	18	37	Melia azadirach	वर्कन	01
11	Cassia marginata	रेंड शावर ट्री	04	38	Milletia ovalifolia	मिलंदिया	65
12	Cassia fistula	अमलतास	36	39	Nauclea cadamba	कदम्ब	11
13	Colvillea racemosa	चिलबिली	01	40	Plumeria alba	टेम्पल ट्री	22
14	Callistemon lanceolatus	बोतल सूप	79	41	Plumeria auctifolia	पगोड़ा	02
15	Casurina equistefolia	बीफ चूड ट्री	04	42	Peltoforum ferrugineum	पीला गुलगोहर	28
16	Choresia speciosa	सिल्क काटन ट्री	01	43	Polngamia glabra	पापडी	10
17	Carryota urence	फिश टेल पाम	27	44	Polyalthia longifolia	अशोक	48
18	Crataeva religiosa	बना	110	45	Populas species	पोपुलर	25
19	Cassia javanica	ज्यवा	07	46	Putranjiva roxburghii	पुतरजीवा	07
20	Cederella toona	तून	02	:47	Schleichera trijuga	कुसुम	59
21	Dalbergia sisoo	शीराम	39	48	Spathodia companulata	पिचकारी	08
22	Erythrina indica	ताता	03	49	Salyx babylonica	मजन्	07

#### 9. Trees at Vijay Ghat

The Campus of Vijay Ghat is 27.26 acres area which has 692 Nos. Trees of 53 different species. These include the following

SL.	Botanical Name	प्रचलित नाग	Nos.	SL No.	Botanical Name	प्रचलित नाम	Nos
1	Acacia auriculiformis	अकसिया	06	28	Grevillea robusta	सिल्बर ओक	21
2	Anthocephalus cadamba	कदम्ब	20	29	Heterophragma adenophyllum	मरोड़ फली	01
3	Azadirachta indica	नीम	05:	30	Lagerstroemia flosreginae	प्राइड ऑफ इंडिया	60
4	Alstonia scholaris	डेविल ट्री	16	31	Melia azadirachta	बकैन	04
5	Acacia species	कोकर	02	32	Pitheeellobium Dulee	जगल जलबी	-01
6	Bauhinia alba	सफंद कचनार	03:	33	Mimusops elengi	मोलसिरी	12
7	Bassia latifolia	महुआ	04	34	Morus alba	शहतृत	07
8	Bombax Ceiba	सेमल	.05	35	Nauclea cadamba	कदम्ब	02
9	Callistemon lanceolatus	बोतल हुश	32	36	Polyalthia longifolia.	अशोक	21
10	Choresia speciosa	सिल्क काटन ट्री	12	37	Polyalthia pendula	अशोक पेन्डूला	48
11	Cassia fistula	अमलतास	40	38	Plumeria alba	टेम्पल ट्री	32
12	Crataeva religiosa	यना	20	39	Plumeria acutifolia	पगांबा	03
13	Cederella toona	तुन	04	40	Peltophorum ferrugineum	पीला गुलमोहर	10
14	Colvillea racemosa	विलविली	01	41	Pterospermum acerifolium	कनक चम्मा	07
15	Cordía myxa	लसुडा	04	42	Pinus longifolia	भीड	03
16	Ceiba pentandra	सीक	07	43	Roystonea regia	बोतल पाम	13
17	Casuarina equisetefolia	बीफ वृह ट्री	04	44	Pongamia glabra	पापजी	02
18	Delonix regia	गुलमोहर	04	45	Elacocurpus Ganitrus Roxb	शहीश	02
19	Dalbergia sisoo	शीशम	30	46	Sterculia foetida	पून दी	01
20	Diospyros embryopteris	रिवार इबोनी	02	47.	Sterculia alata	उदर	01
21	Eucalyptis citridora	सफदा	104	48	Swetinee mhagoni	महामुनी	01
22	Erythrina indica	तोता.	12	49	Tectona grandis	टीक	17
23	Ficus benjamina	वीपिंग फिल	01	50	Terminalia arjuna	अजून	18
24	Ficus infectoria	पिलखन	01	51	Tecoma argentia	टिकोमैला	02
25	Ficus religiosa	पीपल	47	52	Thespesia populnea	पारस पीपल	03
26	Ficus glomerata	गुलर	05	53	Ziziphus jujuba	बेर	08
27	Ficus bengalensis	बरगद	01				

#### 10. Trees at Delhi Chalo Park

The Campus of Delhi Chalo Park is 12.30 acres area which has 71 Nos. Trees of 12 different species. These include the following.

SL No.	Botanical Name	प्रचलित नाम	Nos.	SL No	Botanical Name	प्रचलित नाम	Nos
1	Acacia species	कीकर	15	7	Ficus bengalensis	बरगद	-01
2	Azadirachta indica	नीम	02	8	Ficus religiosa	पीपल	09
3	Bombax malabaricum	सेमल	01	9	Ficus benjamina	वीपिंग फिन	34
4	Cedrela toona	तून	02	10	Polngamia glabra	यापड़ी	01
5	Eucalyptus citriodora	सफेदा	02	11	Roystonea regia	बोतल पाम	02
6	Ficus infectoria	पिलखन	.01	12	Ziziphus jujuba	वंर	01

#### 11. Trees at National Institute for Communicable Diseases

The Campus of N.I.C.D. is 5.00 acres area which has 230 Nos. Trees of 27 different species. These include the following:-

SI, No.	Botanical Name	प्रचलित नाम	Nos.	Sl. No	Botanical Name	प्रथलित नाम	Nos
1	Alstonia scholaris	डेविल ट्री	04	15	Ficus religiosa	पीपल	23
2	Artocarpus Heterophyllus	कटहल	01	16	Ficus bengalensis	बरगद	04
3	Azadirachta indica	नीम	46	17	Ficus glomerata	पुलर	01
4	Aegle marmelos	बेल	04	18	Livistona chinensis	हाथी पाम	01
5	Acacia species	कीकर	.01	19	Melia azadirachta	वकेन	07
6	Albizzia procera	सफंद सिरिस	0.5	20	Mangifera indica	आम	08
7	Bauhnia purpurea	कचनार	. 01	21	Morus alba	शहतूत	14
8	Cordia myxa	लसूडा	01	22	Polyalthia pendula	अशोक	10
9	Carryota urence	फिश टेल पाम	32	23	Polyalthia longifolia	अशोक	22
10	Casurina equistefolia	बीफ बूड ट्री	0.3	24	Polngamia glabra	पापडी	01
11	Cassia fistula	अमलतास	07	25	Psidium guajava	अमरूद	01
12	Delonix regia	गुलमोहर	03	26	Roystonea regia	बोतल पाम	22
13:	Dalbergia sisoo	शीशम	.01	27	Terminalia arjuna	अर्जुन	01
14	Eugenia jambolana	जामुन	06			22	

#### 12. Trees at Central Vista/Rajpath

Area – 160.00 Acre

Total Number of Trees – 4000 Total Species – 39

S. No	Botanical Name	Common Name	Total Trees	
	Eugenia jambolana	जामुन	1192	
2	Cassia siemea	केसिया	64	
3	Grevillea robusta	सिलयर ओक	148	
4	Bombax malabaricum	रेमल	34	
5	Cassia fistula	अमलतास	150	
6	Chocrisia speciosa	सिल्क काटन ट्री	28	
7	Lagerstroemia thorelli	लार्जस्टौमिया थोरोलाई	477	
8	Callistemon lanceolatus	बोतल बुश	362	
9	Ficus religiosa	पीपल	72	
10	Pithecellobium Dulce	जगल जलेबी	1	
11	Michalea grandiflora	चम्पा	4	
12	Acasia auriculoformis	अकेशिया	24	
13	Morus alba	शहतूत	36	
14	Ficus glomerata	गुल्लर	7	
15	Aegle marmelos	बेल	7	
16	Ficus infectoria	पिलखन	43	
17	Fishtail palm	पॉम	3	
18	Ficus elastica	रबर प्लांट	10	
19	Polyalthia longifolia	अशोक	12	
20	Ficus bengalensis	बरगद	3	
21	Mangifera indica	आम	8	
22	Azadirachta indica	नीम	37	
23	Largerstroemia lancesterai	लाजस्ट्रोमिया लेक्नशद्भाई	23	
24	Terminalia arjuna	अर्जुन	52	
25	Putranjiva roxburghii	पुतरंजीवा	9	
26	Eucalyptus citriodora	सफेदा	24	
27	Delonix regia	गुलमोहर	26	
28	Samanea saman	सीरस रेन ट्री	16	
29	Tamarindus indica	इमली	5	
30	Dalbergia sisso	शीशम	2	
31	Melia azadirachta	बकायन	2	
32	Artocarpus heterophyllus	कटहल	1	
33	Prumia sativa	आरु	2	
34	Pongamia glabra	पापडी	7	
35	Jacaranda nimosaefolia	नीली गुलमोहर	13	
36	Prospis julifiora	देसी बबूल	1	
37	Mimusops elengi	मोलेशरी	1	
38	Roystonea regia	बोतल पाम	10	
39	Ficus benjamina	फाईकस बैन्जामिना	1084	

#### 13. Trees at Teen Murti House

Area – 26.07 Acre

Total Number of Trees –676 Total Species – 48

S. No	Botanical Name	Common Name	Total Trees
li.	Kigelia pianata	Sosage Tree (Balam Kheem)	5
2	Cassia fistula	Amaltush	39
3	Grevillea robosta	Silver Oak	38
4	Ficus benghalensis	Bargad	3
5	Ficus religiosa	Peepak	9
6	Mangifera indica	Mango	18
7	Bombax cieba	Samel	16
8	Eugenia jambolana	Janun	15
9	Tecoma argentea	Teconni	3
10	Azadirachta indica	Neem	42
11	Pongamia pinnata	Papdi	68
12	Ceiba pentandra Se	mil	10
13	Ficus racemosa	Anjeer	5
14	Minusops clengi	Moulsari	6
15	Morus alba	Sahtoot	47
16	Psidium gunjava	Gimva	7
17	Putranjiva roxburghii	Putranjiya	77
18	Holoptelea integrifolia	Chirivilya	24
19	Phyllanthus emblica	Amla	1
20	Melia azedaraeh	Bakain	7
21	Prosopis cineraria	Khejri	70
22	Acacia nilotica Ba	bool	37
23	Pinus roxburghii	Chir - Pine	8
24	Polyalthia longifolia	Ashok	27
25	Artocarpus heterophyllus	Kathal	4
26	Poinciana regia	Poinciana	2
27	Albizia lebbeck	Shiras	3
28	Terminalia arjuna	Arjun	6
29	Callistemon viminalis	Bottle Brush	16
30	Cassia javanica	Java	3
31	Neolamarckia cadamba	Kadam	3
32	Lagerstroemia thorellii	Largerstroemia	4
33	Butea monosperma	Dhak	8
3.4	Schleichera oleosa	Kusum	1
35	Bauhinia racemosa	Kachnar	5
36	Crataeva religiosa	Barna	1
37	Averrhoa carambola	Kanuakh	1
38	Acgle marmelos	Bale	11
39	Chorisia speciosa	Silk Floss Tree	2
40	Ficus palmata	Khemri	3
41	The state of the s	njamina	7
42	Toona ciliata	Toon	4
43	Alstonia scholaris	Devil Tree	8
44	Ficus bengalensis varigated	Bargad	
45	Diospyros cordifolia	Bistendu	
46	Pithecellobium dulce	Jungle Jalebi	4
47	Ailanthus excelsa	Owl	4
48	Ficus iyratu	Ficus	4

#### 14. Trees at Indira Gandhi Memorial

Area – 4.67 Acre

Total Number of Trees – 205

Total Species – 34

S. No	Botanical Name	Common Name	Total Trees
1	Eugenia jambolana	Jamun	13
2	Mangifera indica	Mango	4
3	Putranjiva roxburghii	Putranjiva	55
4	Phyllanthus emblica	Amla	3
5	Averrhoea carambola	Kamrakh	1
6	Artocarpus hetorophyllus	Kathal (Jack Fruit)	t)
7	Heterophragma adenophyllum	Marod Fali	12
8	Azadirachta indica	Neem	17
9	Kigelia pinnata	Balam Kheera	4
10	Holoptelea integrifolia	Chirivilva	13
11	Tamarindus indica	Imli	4
12	Cassia siamea	Cassia	1.
13	Cinnamomus comphora	Camphor Tree	2
14	Ficus racemosa	Anjeer	1
15	Terminalia belerica	Bahera	10
16	Ficus bengalensis	Bargad	1
17	Aegle marmelos	Bale	1
18	Morus alba	Shahtoot	1
19	Plumeria rubra	Champa	2
20	Salix alba	Golden Willow	2
21	Terminalia arjuna	Arjun	1
22	Alstonia scholaris	Black Board Tree	1
23	Grevillea robusta	Silver Oak	18
24	Ficus infectoria	Pilkhan	4
25	Polyalthia longifolia	Ashok	9
26	Cassia fistula	Amaltash	f
27	Anthocephalus cadamba	Kadam	18
28	Bauhinia veriegata	Kachnar	5
29	Zuzyphus jujuba	Ber	1
30	Mimusops elengi	Moulsari	3
31	Pinus roxbughii	Chir-Pine	İ
32	Callistemon viminalis	Bottle Brush	2
33	Annona squamosa	Sharifa (Sugar Apple)	1
34	Cordia myxa	Lasoda	1

#### **DETAILS OF CPWD PARKS**

#### 1. Buddha Jayanti Park

Pt. JawaharLal Nehru, pioneer of Modern India and a man of far sightedness had the idea to commemorate the 2500th birth anniversary of Lord Buddha by laying a park commiserative to his status and teachings of making the mankind free from sufferings. The Buddha Jayanti Park is seen with a large Statue of Lord Buddha in a sitting posture covered in Gold Coloured paint erected on a flat raised Platform supported by pavilions on all directions. The platform and Statue were established on October 1993 over an artificial Island created within the premises of this park as a respect and tribute to H.H. Dalai Lama the 14th . A sapling was planted in this park which was taken from the Holy Bodh Tree in Sri Lanka. It was during the 3rd century when Princess Sanghamitra who was King Ashoka's daughter took a sapling from the ancient original Bodh Tree situated in Bihar believed to be the tree under which lord Buddha spent days during

his meditation period up till he attained Nirvana or Enlightenment and hence is considered very Holy and Sacred to all and carried it to Sri Lanka where she planted, nurtured and attended to it with love and care up till it grew very tall, thick and green. It was also known that she used to preach Buddhism under this very tree which exists even today.

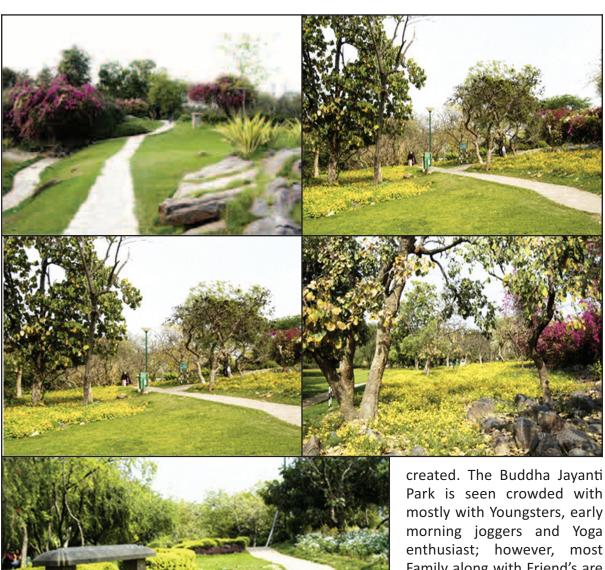
The speech of 1st Prime Minister of India Pt. JawaharLal Nehru in UN General Assembly New York in Nov. 10th 1961 had also been



**GLADIOLUS** 

displayed on a big stone in 1965 on international co-operation year in Hindi and English version. A Bal – Boudh Tree was planted in the park by then Prime Minister Shri. Lal Bahadur Shastri on 24.10.1964, which was presented by Her Highness Sri Mao BhandarNayake the then Prime Minister of Sri Lanka.

The approximately 70 acres of land for this park was allotted by the L&D.O. long back. A great care has been taken to keep the Buddha Jayanti Park free from all sorts of pollution after preserving the topography of land, rocks and hillocks and flora and fauna of the ridge in which it is located. This Park is being maintained by CPWD. The natural trees, shrubs and other flora and fauna had not been disturbed at all while making the park. Most of the trees planted there are of indigenous nature and ecological balance has been maintained in a nice way. In the last year Colour Garden, Canna Garden, Medicinal Garden, Rose Garden, Palm Garden, Cactus Garden, Bulbous Garden, Bamboo Garden, Rock Garden and Fragrance Garden have been



Park is seen crowded with mostly with Youngsters, early morning joggers and Yoga enthusiast; however, most Family along with Friend's are seen here, especially during weekends, where they spend fun time after a good picnic lunch with each other. Young couples mostly visit this park during weekdays as it generally remains quit and free of the

usual family crowd and hence gives them a quiet time and ample space to spend private time with each other.

Major part of the Garden is covered by different varieties of Bougainvilleas which gives a very good look during its flowering time and those can be seen in these pictures.

#### **Buddha Statue in the Buddha Jayanati Park**

The installation of the statue of Lord Buddha at Buddha Jayanti Park in New Delhi is an historic event. This monument with a canopy is being dedicated as a symbol of the gratitude of His Holiness the Dalai Lama to the people and government of India for their sustained effort in promoting the cause of world peach and understanding. In 1983 His Holiness expressed a wish

to erect a monument in Delhi under such a dedication. Following that, Tibet House, the Cultural Centre of His Holiness, approached the Government of India with a proposal to install a statue of the Buddha under a canopy in Buddha Jayanti Park. This would not only be an ornament to the park but also a befitting monument in honour of one of the greatest sons of India, who showed the Universal path to Freedom from suffering through personal example over 2,500 years ago.

Through the sympathetic consideration of the Ministry of Urban Development, the Delhi Urban Art Commission and other authorities, a plot of land was made available to Tibet House for the installation of the statue and canopy in Buddha Jayanti Park. In 1987, the then Prime Minister, Shri Rajiv Gandhi, approved a model of the proposed structure, the design and proportions of which were finalized in consultation with the appropriate authorities in 1988. The design as a whole symbolizes a harmonious union of diversities-racial, linguistic, communal etc. a unit which has been the core of the message of His Holiness the Dalai Lama. The structure in its entirety may be viewed as a journey through stages to this goal, rising from the base to the topmost spire, of the complete realization of compassion and wisdom. It is a symbol of this process of manifestation, and a representation of non-daulity.

Its name, natural topography and pattern of vegetation made Buddha Jayanti Park an appropriate setting for the statue of the Buddha. Placed on an island in the Park, this new monument faces east, exactly as the Kalacakra Mandala is oriented, and the direction in which the Buddha sat under the Bodhi tree at Bodh Gaya when He attained Enlightenment.

The entire structure embodies a cluster of Buddhist symbols and meanings. The base is set within an embankment with five concentric rings representing the five elements – earth, water, fire, wind and space. The design of the base is fashioned after the Kalacakra Mandala, the last system of mandalas introduced to Tibet from India. (Besides their deep spiritual message, the teachings of the Kalacakra were a historical response to the various threats, such as internal riots and external aggression, that endangered the unity of the diverse communities of the India of the time.)

The canopy has a three-tiered base on each of its four sides, which together signify the twelve channels (nadis). Its four pillars represent the four energy drops (bindus), apart from supporting the dome and upper parts of the canopy. The ten directions of the canopy represent the ten vitalities (pranas). The nadis, bindus and pranas are the vital constituents of the human body in the Kalacakra system of Tantra. The parapet and the upper reaches of the canopy are ornamented with intricate Tibetan designs, while the dome symbolizes the vital factors of enlightment. Above the dome, a square and conical structure represent the constituents of the Noble Path, while thirteen rings on the core are symbols of the ten strengths and three mindfulnesses of an Enlightened being. The chatra represents the all pervasivecompassion(mahakaruna) of the Buddha, and the topmost spire the nobility of His attainment.

Altogether, the six parts of the canopy – base, columns, dome, cone – chatra and spire, correspond to the six chakras which form the centres of subtle energy in this human body; but the design of the upper reaches of the canopy follows that of the historic GyantseStupa, PalkhorChoten – in Tibet.

The statue of the Buddha has been designed in traditional Tibetan style of Mr Pemba Dorje, a skilled Tibetan craftsman in Dharamsala. It is made from beaten copper glided with gold, and is eight feet high including the pedestal. The right hand of the Buddha is shown in

the Bhumisparsa Mudra, and the positioning of the statue on a raised throne symbolizes His message that all beings have the potential to attain the highest goal of Buddhahood.

The statue is placed on a throne which contains an engraving of Bhumidevi, the Earth Goddess. When challenged by Mara to provide a witness to testify to the merits He had attained, the Buddha touched the earth (bhumisparsa), invoking it to bear witness. Bhumidevi emerged from the earth to testify for Him. It is our responsibility now to care more deeply for Mother Earth, who is depicted in the engraving as pleading for the attention of her children.

The canopy is about forty feet at its highest point and is built in sandstone mined and transported from BansiPaharpur in Sikar district, Rajasthan. The craftsmen who transformed the stone into a beautiful edifice are also from Rajasthan and belong to communities of traditional temple builders. An initial design of the canopy was done by Kazuhiro Nakahari of Thanka Architects and his team, but that assumed a larger structure and site than ultimately became feasible. The beautiful structure that has now been completed was designed and its construction and landscaping coordinated by M.N. AshishGanju Mark Warner Rajiv Narain Architects.

#### 2. Bhagwan Mahaveer Vanashthali Park

Bhagwan Mahaveer Vanashthali Park is situated on the Ridge Road towards the southern ridge

which lies close to Dhaula Kuwan or alternatively from Sardar Patel Marg and is easily reachable by local transport. spreads over the area of 25 acres of land and is seen planted with ornamental and green trees, shrubs, flower beds and lawns that's creates natural effect to the



environment. Gardens in Delhi are been constructed since the Mughal Emperor rule over Delhi. The park is seen crowded with mostly young couples, morning walkers and yoga enthusiasts, however most families along with friends are seen here especially during weekends. This park also attracts tourists and sacred for Jain religion.



#### 3. Delhi Chalo Park

Delhi Chalo Park is situated behind the Red Fort along the Ring Road, it's approx area is 12.30 acres seen from this park is Musamman Brij in the centre. Rang Mahal is the right and Deewan-E-Khas on the left. This beautiful park increase the beauty of the Red Fort.



#### 4. Jai Prakash Narayan Memorial Park

The Lok Nayak Jai Prakash Narayan Memorial Park is situated at Bahadur Shah Zafar Marg. This was offered to public in year 2004. This park was developed by CPWD and it has lush greenery. Having more than 4.50 acres of area, this park is having 127 Nos. of trees of 22 different varieties. A number of trees are planted in a circular manner around a circular lawn having a



circular bed of Cannas in the centre. There is a huge statue of Lok Nayak Jai Prakash Narayan fixed on a high rise mound. Garden light, fittings and fixtures are very beautiful at the night. This park was made open for use of public without any ceremonial/opening ceremony. The park has excellent boundary structure and gates etc. The park is having a huge statue of Dr. Shyama

Prasad Mukherjee in a side surrounded by a cluster of good looking Thuja plants.

#### 5. Deen Dayal Upadhya Memorial Park

The Deen Dayal Upadhyay Park is situated at D.D.U. Marg. The park is having 368 Nos. trees of 23 different species. This park is also known as Hathi Wala Park. It has a large no. of Palms and groups of good looking flowering



shrubs. It has a fountain of oval shape and it is adjacent to Mata Sundari Fly Over. This park is divided into three parts one of this known as 3-A Pocket and second is 6-A Pocket and other one is 7-A Pocket. It has big length of hedge and shrub beds looking lush green and seems very nice while walking/jogging through this park and considered as a Joggers Paradise by the senior citizens and all.



#### 6. National Police Memorial Park

National Police memorial park is located in chankyapuri it's approx area is 3.93 acre. This park was developed to commemorate the memory of Martyrdom of all the 9 or 10 Police Forces serving the nation. These forces are such as CRPF, ITBP, BSF etc. Its ownership belongs to



Ministry of Home Affairs. In the beginning a huge global structure was proposed to be established at a much high location in the center of the park. But due to some objection raised by different organization this global structure was removed from here & shifted to some other park probably in Noida.

#### WINTER SEASONAL FLOWERS

- The winter season in India starts from the month of October and continue till the month of March. This is the season when the flowering plants bloom and fill the dull landscape with their vibrant and eye soothing colours. It is up to the choice of the gardener, what variety he wants to grow. Definitely he should be aware that the variety that he chooses should be suitable with his land conditions for a perfect bloom. The conditions required for a great bloom may involve different light requirement depending on their variety, i.e. full, semi shaded or shade, most winter annual flowers require full sun and water throughout.
- The characteristic feature of every winter flowering plant would be their striking appearances and a colourful display of flowers. Annual flowers and plants live their complete lifecycle in one season and once they start to flowering they continue blooming, some just until they have produced seed other until the weather is incompatible for their growth/ survival. You should intend filling the colourless places in the garden with colourful flowering plants. Winter can be dull if we have not prepared for it with the grey skies and so many plants dormant. Winter annual flowers can be a fantastic way of filling gap in the time between dormancy and spring with sparky colours. Fortunately, North India offers a very rich variety of winter annuals to choose and to arrange them in order to create a colourful display in the garden. There are two ways to grow them, firstly from seedlings which grow in seed pans secondly by directly showing seeds in beds or pots.
- No joy in this world would match the level of joy to gaze upon the seedling sown by you, break first into a bud and then blossom into a riot of colours, an unsurpassed beauty that only Mother Nature can bestow on mankind. Sheer aesthetics apart, growing plants would take care of your contribution towards conserving our environment. This in turn would help save the fast depleting green cover on earth. So go out and plant now. Happy gardening!
- Herewith are a few examples of winter annuals which are easy to grow in Indian conditions, easy to maintain and bloom into absolutely stunning flowers.

#### 1. Aster (Callistephus chinensis)

Asters get their name from the Latin word for "star," and their flowers are indeed the superstars of the garden. Some the height of the plants varies from 30 cm to 75 cm according to verities Aster has most cheerful different colours . It requires full sun for growth. The flowers





**ASTER** 

attracts butterflies and drought tolerance plant and very easy to grow during winter in India.

#### 2. Sweet William (Dianthus barbatus)

The quintessential cottage flower, pinks are treasured for their grass like green foliage and abundant starry flowers, which are often spicily fragrant. Depending on the verities of pink, red and other colours flowers appear in late winter and continue till spring. This is used as cut flower in flower vases . Plants height varies from 10 cm to 75 cm approx. The flowers attract the humming bird, butterflies.

#### 3. Petunia (Petunia hybrida)

Petunias are fail proof favourites for gardeners everywhere. They are vigorous growers and prolific bloomers from mid spring through late fall. Colour choices are nearly limitless, with some sporting beautiful veining and intriguing colours. Many varieties are sweetly fragrant (sniff blooms in the garden centre to be sure.) Some also tout themselves as "weatherproof," which means that the flowers don't close up when water is splashed on them. Height of the plant varies from 15 cm to 45 cm according to verities. It is more useful in pots and border of the lawn.

#### 4. African marigold (Tagetes erecta)

There's nothing subtle about an African marigold, and thank goodness for that! It's a big, flamboyant, colourful punch of colour for the sunny bed, border, or pots. Mostly it founds in orange, yellow, cream and white. Plants height varies from 30 cm to 90 cm according to different varities The foliage of the plants dark green fresh and tidy. It require full sun and a common man flower in India.

#### 5. Marigold French (Tagetes patula)

Shorter and not as upright as African Marigolds, French Marigolds form mounds that are often wider than they are tall. These aromatic annuals are easy to grow and brighten the garden with their cheerful shades of yellow, orange and red. They grow roughly 8-12 inches high with a chic, neat, little growth habit and elegant dark green foliage. They do best in full sun with moist, well-drained soil and will flower



SWEET WILLIAM



**PETUNIA** 



AFRICAN MARIGOLD



MARIGOLD FRENCH



**PHLOX** 



STATICE



**BEGONIA** 



BLACK-EYED SUSAN RUDBECKIA

all summer long. They may reseed, coming back year after year, in spots where they're happy.

#### 6. Phlox (Phlox drummondii)

Annual phlox is good choice for gardeners in India because it's easy to grow and puts on such a great display for beginning gardeners who have to tackle a hot, dry spot. Remove the flower clusters as they fade to encourage more blooms and pinch the plants back in summer if they start to get leggy. Plant is grown easily in beds, pots and border etc. Height of the plants varies from 10 cm to 45 cm and has the wider choice of colour white, pink, red, blue, violet, lavender etc.

#### 7. Statice (Limonium sinuatum)

Old-fashioned annual statice is found more often dried in crafts stores than growing in gardens. But this easy-to-grow plant is a great pick for containers or the middle of a border, especially if you want to harvest it for everlasting bouquets indoors.

The plant is also very drought-tolerant, so you can enjoy its blooms even if you forget to water it from time to time. In fact, statice thrives in hot, sunny spots with well-drained soil. The plants to be planted middle of the border and height goes to 30 cm to 60 cm. This is a wider choice of floweriest because the flowers to be used for cut flowers and dry flower.

#### 8. Begonia (Begonia valvata)

Annual begonia is about as easy as it gets. It does well in a variety of conditions, but to keep it its most luxuriant best, give it light shade; rich, well-drained soil; and ample water. It also loves plenty of fertilizer, so be generous. The plant can be grown in semi shade or shaded area. The plant height varies from 15 cm to 45 cm according to the varities It is specially use in container, border as well as hillock also.

#### 9. Black-eyed Susan (Rudbeckia selections)

Add a pool of sunshine to the garden with a massed planting of black-eyed Susan. From midsummer, these tough native plants bloom their golden heads off in sun or light shade and

mix well with other perennials, annuals, and shrubs. Tall varieties look especially appropriate among shrubs, which in turn provide support. Add black-eyed Susans to wildflower meadows or native plant gardens for a naturalized look. Average soil is sufficient for black-eyed Susans, but it should be able to hold moisture fairly well. The Plant ht. 60-300 cm tall, 3-11 plants, Width: 1-1/2 to 3 feet, Depending on variety flowr color: Yellow or Orange Flower, Depending on variety Bloom, Time: Bloom midsummer into fall.

#### 10. Calendula (Calendula officinalis)

The Calendula is a most common winter annuals after the African Marigold in India. Sometimes grown as an herb, cheerful calendulas look good in every garden. The cream, yellow, apricot, or orange flowers are edible, adding bright colour and tang to soups and salads. And they're great cut flowers, adding a burst of sunshine to bouquets. Cool-season annuals, these plants do best in early flowering.





CALENDULA

They like a variety of soils but need good drainage and moderate water. Deadhead them regularly to prolong bloom. Calendula will reseed in ideal conditions. The plant requires full sun it can be easy to grow and uses for cut flowers, border plant and pot plants. Height of the plant varies from 20 cm to 75 cm according to different varieties.

#### 11. California poppy (Eschscholzia californica)

California poppy, a native wildflower, adds an easy going dose of color hot, dry sites. Beautiful, satiny flowers in sunset colors wave above ferny, blue-green foliage. They like poor soils, especially sandy soils. If soil is too rich and moist, they won't bloom well. California poppies are a cool-season annual, which means they offer great color early in the growing season but fade once the heat of summer hits. The Plant ht. 30 cm tall, width: 1 foot wideLandscape, Easy to Grow. California poppies will reseed easily; for more plants next year, allow some flowers to ripen to seed on the plant and scatter when you



CALIFORNIA POPPY

tear up those plants. Replant in fall if you like, especially in warmer-climate areas.

#### 12. Hollyhock (Alcea rosea)

The ultimate cottage garden choice, hollyhock sends up tall spires that cover themselves in flowers in beautiful colors. They're easy to grow from seed -- in fact, that's usually the only way they are found in garden centers. Most hollyhocks are biennials, that is, they grow only foliage the first year, flower the second, and die that fall. However, if you establish a stand of



HOLLYHOCK ALCEA ROSEA

hollyhocks, they'll reseed each year so there will always be plenty blooming. Interestingly, the flowers open from the bottom to the top of the spike throughout the summer. These tall (up to 8 feet) beauties are ideal against fences or buildings where they can get natural support. Red forms are especially attractive to hummingbirds and butterflies. The plant ht. 90-240 cm, width. 30-90 cm, colour available. Red, Pink, apricot, yellow, levender, purple amd near black, Easy to Grow.

#### 13. Cosmos (Cosmos bipinnatus)

The simple, daisy like flowers appear in cheery shades on tall stems that are great for cutting. The lacy foliage makes a great backdrop for shorter plants, as well. Cosmos often self-seeds in the garden, so you may only have to plant it once, though the colors can appear muddy or odd in the reseeders. The plant ht. 60-150 cm tall, 2-11 plants, width: 30-60 cm wide landscape, Easy to Grow Plant cosmos from seed directly in the ground in spring. Or start from established seedlings. This flower doesn't like fertilizing or conditions that are too rich, which causes the foliage to be large and lush but with fewer blooms.



COSMOS

#### 14. Flowering kale (Brassica oleracea)

Thank goodness for kale. It's one of the few plants available to add a fresh burst of color and life to the fall landscape! Its leaves come with beautiful variegations in pinks, purples, and reds that blend beautifully with changing autumn foliage. Plant it in spring or in the fall after you tear out tired or frost-damaged annuals such as marigolds and impatiens. It likes rich, well-drained but moist soil. The flower ht. 12-18 inches tall, width: 12-18 inches wide landscape, Easy to Grow.



FLOWERING KALE

#### 15. Gazania (Gazania linearis)

This tough plant endures poor soil, baked conditions, and drought beautifully and still produces bold-color, daisy like flowers from summer to frost. A perennial in Zones 9-11 -- the hottest parts of the country -- gazania is grown as an annual elsewhere and blooms from midsummer to frost. A summer plant often grown as an annual, gazania bears boldly colored

daisy-shaped flowers from summer to frost. The flowers appear over toothed dark green or silver leaves between varieties). Plant established seedlings outdoors after all danger of frost has passed. Do not fertilize, and keep soil on the dry side. The plant ht. 30 cm, width: 30 cm, 8-10 plant, Easy to Grow.

#### 16. Geranium (Geranium oreganum)

Geraniums have been a gardener's favorite for well over a century. The old-fashioned standard for beds, borders, and containers, geranium is still one of the most popular plants today. Traditional bedding types love hot weather and hold up well to dry conditions; many offer colorful foliage. Regal, also called Martha Washington, geraniums are more delicate-looking and do better in the cool conditions of spring and fall. Though most geraniums are grown as annuals, they are perennials in Zones 10-11. Bring them indoors to overwinter, if you like, then replant outdoors in spring. Or they can bloom indoors all year long if they get enough light. The plant ht. 60 cm & width. 60 cm, Easy to Grow.



Gerbera daisies are so perfect they hardly look real. They bloom in nearly every color (except true blues and purples) and produce fantastically large flowers on long, thick, sturdy stems. They last for a week or more in the vase, making them a favorite of flower arrangers. This tender perennial will last the winter in only the warmest parts of the country, Zones 9-11. In the rest of the country, it is grown as an annual. It does well in average soil; it likes soil kept evenly moist but not overly wet. Fertilize lightly. The plant ht. 30 cm, width. 60 cm, 10-11 plants, Easy to Grow.

#### 18. Brachycome (Brachycome iberidifolia)

Easy, always fresh, and always eye-catching, Shasta daisy is a longtime favorite. All cultivars produce white daisy flowers in various degrees of doubleness and size. The sturdy stems and long vase life make the flowers unbeatable for cutting. Shasta daisy thrives in well-drained, not overly rich soil. Taller sorts may need staking. The plant ht. 60-150 cm tall, width. 30-60 cm wide landscape, 5-8 plants, Easy to Grow.



**GAZANIA** 



**GERANIUM** 



**GERBERA** 



**BRACHYCOME** 

#### 19. Godetia (Clarkia amoena)

This under-appreciated annual bears the most beautiful, satiny pink or white flowers for weeks in summer. It also goes by the charming name farewell-to-spring, perhaps because it blooms just as spring temperatures are rising. Plant it once and you won't want to go a growing season without it.





GODETIA

Native to areas of North America, this plant does best in areas with cool summers and in moist, well-drained soil. It's a great cut flower, too. Although you can sometimes find it as established seedlings, most gardeners will need to start it from seed. Plant directly in the ground in early spring; it dislikes transplanting. Don't fertilize. If it has too many nutrients, it will have lots of foliage and few flowers. The plant ht. 30-150 cm tall, width 30 cm wide landscape

#### 20. Larkspur (Delphinium ajacis)

Larkspur is basically an annual version of delphinium, an all-time favorite perennial. Larkspur produces lovely spikes of blue, purple, pink, or white flowers in spring and summer. They look best clustered in small patches.

Like many cool-season annuals, it's a good winter-blooming plant for the Deep South. Larkspur is so easy to grow that it often self seeds in the garden, coming back year after year. Plant larkspur from seed directly in the garden in early spring. Larkspur doesn't like to be transplanted.



IARKSPIIR

It prefers rich, well-drained soil and ample water. The plant ht. 60-120 cm, width. 6-12 inches, Easy to Grow.

#### 21. Shirley Poppy (Papaver rhoeas)

The Shirley poppy was created from 1880 onwards by the Reverend William Wilks, vicar of the parish of Shirley in England. Wilks found in a corner of his garden where it adjoined arable fields, a variant of the field poppy that had a narrow white border around the petals. By careful selection and hybridization over many years he obtained a strain of poppies ranging in colour from white and pale lilac to pink and red, and unlike the wild poppies these had no dark blotches at the base of the petals. Further selection has given rise to semi-double and double forms, as well as flowers with a ring of

contrasting colour around the edge: the picotee form.



SHIRLEY POPPY

#### 22. Nasturtium (Tropaeolum majus)

Nasturtiums are so versatile. They grow easily from seed sown directly in your garden's poorest soil and blooms all season until frost and are never greedy about food or fertilizer. Nasturtiums are available in either spreading or climbing types. Plant spreading types in large containers to spill over the sides. Plant them alongside wide paths to soften the sides for a romantic look. Use nasturtium to brighten a rock garden or between paving stones. Plant them at the edges of beds and borders to fill in between other plants and add soft, flowing color. Train climbing types up trellises or alongside fences. The leaves and flowers are edible; use them as a showy plate garnish or to jazz up salads. The plant ht. Mouding varieties from 9-16 inches, width. 12-18 inches depending on type landscape, Easy to Grow.



Mesembryanthemum is a member of the family Aizoaceae; like many members of this family, it is characterized by long-lasting flower heads.

Flowers of Mesembryanthemum protect their gametes from night-time dews or frosts but open in sunlight. There is an obvious evolutionary advantage to doing this; where sun, dew, frost, wind or predators are likely to damage exposed reproductive organs, closing may be advantageous during times when flowers are unlikely to attractpollinators.

#### 24. Paper Flower (Helichrysum petiolare)

This plant is attractive to bees, butterflies and/or birds, Average Water Needs; Water regularly; do not overwater Self-sows freely; deadhead if you do not want volunteer seedlings next season. This plant is resistant to deer Flowers are good for drying and preserving Suitable for growing in containers Height: 6-12 in. (15-30 cm) Width. 12-18 in. (30-45 cm)

#### 25. CornFlower (Centaurea cyanus)

The annual blue cornflower is a slender plant of great charm. Its rich shades of blue are much sought after, both for garden decoration



NASTURTIUM



**MESEMBRYANTHEMUM** 



PAPER FLOWER



**CORNFLOWER** 

and for flower arrangements. Garden varieties have added red, pink, lilac and white to the colour range, and even bright yellow is available in the closely related sweet sultan Amberboa moschatus. The wiry plants may need some discreet support, and deadheading helps to prolong the flowering season, as does autumn sowing, an option that will produce larger, earlier-flowering plants. This fully hardy plant requires a sunny site, growing in most well-drained soil types, even poor soil. The plant Height: 90cm, Spread: 30cm, Time to plant seeds: March to May.

#### 26. Salvia (Salvia splendens)

These annuals are easily grown from Salvia seeds, and they provide vivid color that lasts from summer through fall. Also known as Salvia Horminum Clary, this annual Blue Salvia plant is native to an area extending from the Mediterranean to the Crimea and into Iran. The botanical name Salvia Horminum is synonymous with Salvia Viridis. Salvia Blue Monday quickly grows up to 28 inches tall and about 12 inches wide. The brilliant purple-blue flowers last well as cut flowers or dried flowers. The plant prefers loose soil, good drainage, moderate water, and mostly sunny locations.

#### 27. Cineraria (Cineraria longipes)

These are herbaceous perennials that are often grown as annuals. There are three basic types: the large-flowered; the stellata or Starflowered; the intermediate, with flowers similar to the stellata and having the compact growth of the large-flowered; and the dwarf intermediate strain, growing 1-foot tall and having a compact, free-flowering growth. They all come in a wide range of colors. There are two main types of the tall, small-flowered Cinerarias. The most popular is the Star-flowered, which produces an abundance of small flowers in blue, pink, salmon, white and other hues. The large-flowered Cinerarias come in a brilliant array of colors. Mixed seeds of a good strain will provide flowers in blue, purple, rose, pink and other gorgeous colors, many having noticeable white sections.

In Photo Cenenaria in Center only.

#### 28. Pansy (Viola tricolor)

The pansies are a large group of hybrid plants cultivated as garden flowers. Pansies are hardy annuals whose flowers have "faces." These



SALVIA



CINERARIA



PANSY

plants offer colorful flowers for any season in your garden. They have one of the widest ranges of colors and are good for containers, borders, and ground covers.

#### 29. Verbena (Verbena brasiliensis)

Verbena is a spreading plant ideal for cascading over retaining walls, pots, baskets, and window boxes. As log as the soil is extremely well drained, verbena will reward gardeners with countless clusters of small blooms all season. It's fairly drought-tolerant, making it a great choice for hanging baskets, rock gardens, planting in cracks between stones, and other tight places. The plant ht. From 9 to 18 inches tall, Width:From 12 to 20 inches Landscape, 7-9Plant.

#### 30. Nemesia (Nemesia violiflora)

Nemesia is a charming cool-season annual with pretty little snapdragon-shape flowers -- often fragrant -- that bloom in a wide range of colors. It does best in spring and fall (winter in mild-winter climates), though some varieties have better heat-tolerance than others. In cool-summer areas, such as the Pacific Northwest, nemesia will continue to bloom right through the summer into fall. Nemesia prefers moist, well-drained soil that's rich in organic matter. The plant ht. 60 cm, Width: 60 cm blooms best in spring and fall Landscape.

#### 31. CandyTuft (Iberis gibraltarica)

Sparkling white candytuft, with its cool evergreen foliage, brightens any rock garden or wall for several weeks in spring. At bloom time, plants are covered with umbels of pure white flowers that fade to pink. Compact selections are now available. Where happy, this plant will spread. Supply good drainage, and cut back spent flowers to keep plants neat. The plant ht. 30 cm, width 8-16 inches, 5-9 Plants, Easy to Grow.

#### 32. Antirrhinum (Antirrhinum majus)

Season Winter Name Antirrhinum Common Name Snapdragon, dwarf Description. These are bright, jolly flowers and look great in the garden or in big flower pots. If you look at their flowers carefully they look like a dragon's mouth. They like a sunny



VERBENA



NEMESIA



CANDYTUFT



**ANTIRRHINUM** 



TULIP



CARNATION



**ALYSSUM** 



STOCK

position in any garden soil. Seeds can be sown from January to March.

#### 33. Tulip (Tulipa tarda)

The tulip is one of the most popular garden flowers. Tulips are hardy and require little care. Some types of tulips bloom for years, once established. Tulips generally are divided into 15 different classes, which vary in appearance and season of bloom. The early bloomers include single early, double early, kaufmanniana, and fosterana tulips.

#### 34. Carnation (Dainthus caryophyllus)

The old-fashioned carnation name pinks comes from the serrated flower edges, which look as if cut with pinking shears. And the name of the color pink is said to come from these perennials, which have been popular in gardens for hundreds of years. The many dianthus species and hybrids come in red, white, orange, purple, cranberry, and of course, many shades of pink. Flower size ranges from less than an inch to several inches wide, and height ranges from just a few inches to several feet tall. How to grow: Dianthus prefers average to rich well-drained soil in full or nearly full sun. Refresh older plantings by dividing and resetting plants every few years.

#### 35. Alyssum (Lobularia maritima)

Sweet alyssum, with its dainty, fragrant flowers, is often used in containers and hanging baskets to spill over the edges, creating a soft, frothy look. It's also a great edging plant because of its tidy, compact habit. Regardless of how you use it, sweet alyssum does best in spring and fall's cool conditions (or use it for winter color in very warm climates). In cool-summer conditions, such as the northern third of the United States, sweet alyssum will bloom steadily through the summer. It halts bloom in summer in warmer areas. The plant ht. 8 inches tall, width 30 cm, Easy to Grow.

#### 36. Stock (Matthiola incana)

Stock is best known for its spicy, sweet fragrance and as an excellent choice for flowerbeds and cut flower arrangements. Depending on the variety, stock can grow from about a foot tall to almost three feet, making it a versatile choice for any garden bed. Use taller varieties towards the back of a design to add height, or smaller ones towards the front so you can better admire their scent and their wide range of colors; stock is available in shades of white, yellow, purple, pink, peach, and red. While many varieties are single, meaning that they have four petals per flower, some are double, giving them a softer, more ruffled and romantic appearance.

#### 37. Primrose (Primula malacoides)

Take a walk down the primrose path and you'll never look back! Primroses are a classic cottage flower and are popular with collectors. They covet the hundreds of different primroses

available, especially some of the tiny rare alpine types. Many are staples of cottage gardens and rock gardens, while others provide spring color to damp places, rain gardens, and bog gardens. Their basal rosettes of oval leaves are often puckered or are very smooth. The colorful flowers may be borne singly or rise in tiered clusters, or even spikes. Provide humus-high soil that retains moisture and some shade for best results. The plant ht. 2 inches, width 4 inches, colour whites, pink, lavender, purple red, yellows, orange and green, 2-8 plant, Easy to Grow.



**PRIMROSE** 

#### 38. Dianthus (Dianthus caryophyllus)

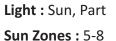
The species are mostly herbaceous perennials, a few are annual or biennial, and some are low subshrubs with woody basal stems. The leaves are opposite, simple, mostly linear and often strongly glaucous grey-green to bluegreen. The flowers have five petals, typically with a frilled or pinked margin, and are (in almost all species) pale to dark pink. One species, D. knappii, has yellow flowers with a purple centre. Some species, particularly the perennial pinks, are noted for their strong spicy fragrance.



DIANTHUS

#### 39. Daisy (Bellis perennis)

Easy, always fresh, and always eye-catching, Shasta daisy is a longtime favorite. All cultivars produce white daisy flowers in various degrees of doubleness and size. The sturdy stems and long vase life make the flowers unbeatable for cutting. Shasta daisy thrives in well-drained, not overly rich soil. Taller sorts may need staking.





DAISY

Plant Type: Perennial

Plant Height: 20-30 cm tall

Plant Width: 1-2 feet wide Landscape

**Uses:** Containers, Beds & Borders

**Special Features :** Flowers, Attractive Foliage, Cut Flowers, Dried Flowers, Attracts Butterflies,

Drought Tolerant, Easy to Grow.



**ASIATIC LILIES** 



**GLADIOLUS** 



**HYACINTHS** 

#### 40. Asiatic Lilies (Lilium chalcedonicum)

Asiatic lilies are one of the most beautiful flowers that you can grow. I love to walk in the garden and see the new blooms and my garden just wouldn't be complete without them. These are my favorite flowers next to daylilies which aren't really lilies at all. Here you will find all the information you need to grow asiatic lilies.

Once you plant liliy bulbs or plants they will give you pleasure for years to come and multiply and become even more beautiful. They are grown form a hardy bulb that multiplies quickly and takes little care. They come in many sizes, heights and shapes. Lilies are called bulbs but are really tubers with fleshy scales that never go into dormancy like other bulbs that you might be familiar with.

#### 41. Gladiolus (Gladiolus angustus)

Gladiolus is a perennial favored for its beautiful, showy flowers. Its flowers grow on tall spikes and are often found in cutting gardens or in the back along the border (because they are tall). Gladioli have many different colored flowers, and grow between 60 to 180 cm in height. It's good for cut flowers.

#### 42. Hyacinths (Hyacinths orientalis)

Hyacinth bulbs are planted in the fall and borne in spring. The Victorians revered hyacinths for their sweet, lingering fragrance, and carefully massed them in low beds, planting in rows of one color each. The loose to dense racemes of strongly fragrant flowers are closely packed with tubular-bell-shaped, single or double flowers. As well as growing in the ground, colorful hyacinths are excellent for forcing in containers and some are available for early flowering indoors.

#### 43. Dahlia (Dahlia variabilis)

Planting dahlias in a spot that gets at least eight hours of direct sunlight a day. In dry, hot-summer climates, choose a spot that provides direct sun from the morning into midday, offering shade or filtered shade by the hottest part of the late afternoon.

Like potatoes, dahlias grow from tubers so good soil preparation is key to best performance. Loosen or dig soil to a depth of about 10 inches. Your soil should be easily worked and offer superb drainage. If you have heavy soil, amend with peat moss, compost, or aged cow manure.

Planting is a good time to incorporate an organic fertilizer with an N-P-K ratio of 5-10-15 or 5-10-10, 10-20-20, or 0-20-20. The higher middle number -- phosphorous -- assists with bloom production. The third number -- potash or potassium -- helps root development. Any fertilizer recommended for vegetables can be used for dahlias.

Although you can start dahlias from seeds, it's easiest to begin with tubers. After the soil is prepared, dig a hole 4-6 inches deep, lay the tuber horizontally, and cover with soil. If you're planting several dahlias, grow the smaller varieties 9-12 inches apart. Taller dahlias can be spaced 2-3 feet apart, or half their final height (some can grow taller than 6 feet, so be prepared!).

Except in hot climates, don't water the tubers until the first shoots and leaves appear. Because the surface of the ground needs to stay warm (at least 60 degrees F) for the tubers to sprout, avoid mulching until the plants are actively growing.

Once the plants are established, add mulch to conserve moisture and prevent weeds. Because dahlia roots are shallow, pulling large weeds can easily disrupt the roots, so pull weeds only by hand when they are still small. Avoid using chemical weed controls and weeding instruments like hoes because they kill dahlia roots.









**GLADIOLUS** 

#### SUMMER AND RAINY SEASON FLOWERS

The summer season start in India from the month of April and continues till the month of June, from July to September the season is rainy. In summer the temperature rise up to  $45^{\circ}$ c and winds are dry all around. After the sparky spring, where various choice of flowers are available, in summer season there are very limited variety available because of adverse weather conditions, which the gardener can grow for adding color and flowers in his garden. The way of planting are by grow seedlings and planting them in beds or pots, secondly sowing the seed directly in the beds or pots. During propagation for summer flower gardener should keep in mind to add the compost and sand in mixture to maintain the moisture during dry summer before planting seedling or seeds. The gardener should also keep in mind about the availability of irrigation water. Here, we are suggesting some popular summer and rainy season flowers for gardeners to choose from them.

#### 1. Portulaca (Portulaca oleracea)

Portulaca also known as Moss roses, they are excellent flowers to have if you live in a dry climate, since they can store water well, and also provide lots of low lying color for your garden. They also are very easy to take care of after you get started. Moss rose is the gardener's choice for the





PORTULACA

hottest, driest, most problematic spots in the garden. This succulent plant thrives in heat, drought, and lousy soil, rewarding gardeners with nonstop color. Coming in sunny warm reds, oranges, magentas, and yellows, moss rose looks at home in a sun-drenched area. There's also a whole pastel color palette for moss rose -- creamy white, pink, and peach varieties. It often happily reseeds, coming back every year with gusto. The plant ht. 7-20 cm, width. 30 cm, Easy to Grow.

#### 2. Cosmos (Cosmos bipinnatus)

Cosmos are annuals, grown for their showy flowers. The flower heads may be bowl— or open cup—shaped and are atop of long stems. Cosmos are easy to grow and make good border or container plants. The cosmos plants are able to flower from early summer and long lasting up to winter season. They make for good decorations in flower arrangements and also attract birds, bees, and butterflies to your garden. The height of the plants should be very from 15 cm to 45 cm



COSMOS

according to the variety. Its commonly available in dark orange to yellow colour. It is easy to grow.

#### 3. Vinca Flowers (Cartharanthus roseus)

Annual vincas aren't new or flashy flowers on the gardening scene, but recent cultivar developments warrant a new examination of this common bedding plant. Horticulturists have been hard at work bringing us new colors in plants with showier flowers that are easier to start from seed.





VINCA FLOWERS

The height of the plants varies from 15 cm to 45 cm according to variety, the common Vinca plants have only two colours white and dark pink. Now a days various colours in hybrid varieties are available in single colour or contrast. But the hybrid varieties are very susceptible to the water logging and they can not be prolonged during rainy season.

#### 4. Sunflower (Helianthus annuus)

Sunflower is an annual plant, growing up to 4.6 m tall. It has large, rough and hairy leaves, oval to cordate in shape. Flower heads are also large, growing about 20-30 cm in diameter. It consists of numerous, densely arranged florets. Sterile ray florets on the outer side vary in color- they can be yellow, red or orange. The disc florets inside the circular head produce seeds. The florets inside the circular head are called disc florets, which mature into seeds. The florets inside the sunflower's cluster are spirally arranged, which is a most efficient packing of seeds within the flower head. Parts used: Seeds, leaves, root.



SUNFLOWER

#### 5. Sunflower dwarf ( Helianthus annuus)

These dwarf sunflowers are free of pollen, making them perfect as indoor gift plants. They are also tolerant of mildew to perform well in the garden. Miss Sunshine flowers uniformly about 7 to 10 days earlier than Ballad. It is shorter, and flowers are 25% smaller





SUNFLOWER DWARF

than Ballad's 4 to 5-in.(10 to 13-cm) blooms. Miss Sunshine displays warm golden flowers, and produces secondary blooms more quickly.



#### ZINNIA

#### 7. Gaillardia (Gaillardia aristata)

Gaillardia, or Blanket Flower, is a group of about 30 species that include both annuals and perennials. With bright and colorful daisy-like flowers it is no wonder this native wildflower has earned a spot on the heart of gardeners everywhere. The most common species for garden use is Gaillardia grandiflora. It is this perennial, and some of its most unique cultivars that we will discuss here. Hardy, sun-loving and easy to keep it deserves a place in every garden.

### 6. Zinnia (Zinnia acerosa)

Zinnias are one of the easiest annuals to grow, grow quickly, and bloom heavily. They make a massive burst of color in your garden. Zinnias have bright, solitary, daisy-like flowerheads on a single, erect stem. The most common zinnia is "dahlia-flowered" and grows up to three feet. Other types are "cactus-flowered." Use in an annual or mixed border. Smaller zinnias are suitable for edging, windowboxes or other containers. The narrow-leaf zinnia also works well in hanging baskets. Zinnias are very popular for cut flowers.



GAILLARDIA



**GOMPHRENA** 

#### 8. Gomphrena (Gomphrena globosa)

Gomphrena easily grown in average, well-drained soils in full sun. Although mature plants exhibit good drought resistance, plants grow best with regular moisture throughout the growing season. Extremely good heat tolerance. Sow seed directly in the garden. Use ample amounts of seed since germination rate can be quite low. Set seedlings or purchased plants out. Pinch young plants to promote more foliage and flowering. The plants ht. 30 to 60 cm. The plant is hardy nature and easy to grow.

#### 9. Cladium (Cladium californicum)

Cladiumis a very popular bulbus plant for rainy and summer season. It can be grown easily from April to September in north India plane. On onset the winter the plants leaves dried and

bulb can be collected for the next season and they can be stored in cold storage during dormancy. The Cladium have very decorative leaves of different colours and shapes. It can be easily planted in semi shaded beds or pots. The lower dry leaves should be eradicated regularly for new shoots / leaves. The height of plants very from 15 cm to 40 cm mainly leaves of the Cladium is a combination of red, white and green colour. According to the variety.

CLADIUM

#### 10. Balsam (Impatiens balsamina)

Balsam is a very favorite rainy season flower this old-fashioned annual adds an exotic, almost gaudy touch to the garden. It offers interesting, trumpet-shape blooms, mostly in shades of pink. Many selections have bicolor flowers. Balsam often self-seeds in the garden and is very easy to grow. Plant established plants outdoors in spring after all danger of frost has passed. Balsam needs rich, well-drained soil to do best, so work in plenty of compost. (It's ideal in containers as long as you don't let the plants dry out for even a second.) Fertilize lightly but regularly. The plant ht. 30-90 cm tall, width 30-60 cm wide and easy to grow.



GAILLARDIA

# DISPLAY OF FLORAL TABLEAUX DURING REPUBLIC DAY CELEBRATIONS

#### **Preparation of Floral Tableau**

Republic day celebration is the responsibility of the Ministry of Defence, Government of India. Ministry of Defence circulates its letter for the preparation of different tableaux to the various states and some of the Ministries for the Republic day celebrations in each year. Our Ministry receives this letter in the month of May then this work is assigned to CPWD, and till the month of June, it comes to the Directorate of Horticulture. Director of Horticulture assigns the duty of a particular division for the fabrication of the floral tableau. Normally, six sketches of themes are being submitted to the Ministry of Defence by the month of July as per there guidelines. Then discussion regarding, the theme of the floral tableau being discussed before the tableaux expert committee. Expert committee suggests their view points regarding the theme, colour scheme and its suitability to the occasion. Then department has to make rectification in the theme, colour scheme, etc. as desired by the tableaux expert committee. After they get satisfied with our proposal then we are being asked for the preparation of the model. Then again meeting takes place regarding the selection of model and expert committee suggests their view points regarding the model. After the model being selected by the tableaux expert committee then the department is asked to submit music with relevant to the theme and model. Then again meeting takes place regarding the selection of music, if any suggestion comes then music is also modified as per the view points of expert committee. After the theme, model, music and colour scheme being cleared by the tableaux expert committee then the department gets ready for the preparation of floral tableau for the Republic day celebrations.

Director of Horticulture selects the site for the preparation of floral tableau by taking concern of all the sensitivity and security angles of the Republic day celebrations. In the last week of December the department gets a new tractor along with a trailor from the Ministry of Defence (OSD, RR Camp), duly received by the Assistant Director Horticulture and Section Officer Horticulture in-charge of the floral tableau. The whole arena of the fabrication site is being taken by DCP (PM security), Delhi Police and the site is being monitored by CCTV round the clock as per the security norms. Director of Horticulture convenes a meeting of whole department and takes the view points of everyone regarding the availability of flowers and other suggestions regarding fabrication of floral tableau. Thereafter duties are being assigned to all the Horticulture Divisions situated at Delhi. In the first week of January skeleton work starts thereafter wire mess and mossing works starts. Mossing is done and it is being watered regularly for the conservation of moisture so that longevity of the flowers may be ensured. On 23rd onwards collection of flowers starts and the pining of the flowers starts on 25th morning and entire Horticulture department works during this occasion as per the duties already assigned to them and it completes around 11:00 PM in the night. A dinner is also being hosted by the Director of Horticulture for all those who are involved in the fabrication work during this occasion, all the senior officers of the CPWD including Director General and Secretary, Ministry of Urban Development also grace the occasion with their presence. CPWD floral tableau is continuously winning special prize since year 2007 and in the year 2007 this floral tableau won four prizes i.e. Special prize, Best theme, Best colour scheme and Best presentation. Probably this floral tableau is one of the longest floral fabrication work where this much infrastructure, floral craftsmanship and skilled man power is involved.

### "Nanhi Duniya"

2007

The Tableaux depicts children in moods and is intended to get them identified with the Republic Day Celebration.

Placed on the tractor are a happy boy and a girl with a pet rabbit in the background. A number of slides, swings and children in playful moods have been shown scattered all over the trailor.

On the both side panels of the trolley has been fascinated by showing the famous Panchtantro story. The story is based of the theme "Slow and Study win the race" In which a rabbit following a tortoise which is leading the race. Other than rest of the animals watching the race.

Natural flowers will be lavishly used create an eye pleasing experience. Children and Parents



2007 (Nanhi Duniya)

characters are live, while the cartoon characters and other things are created out of floral designs.

### "60th Years of Independences"

2008

This Floral Tableau is depicting patriotism unique cultural heritage made up to colourful and

fresh flowers. This Floral Tableau also won special prize among the Tableaux which paraded in the Republic Day Celebration 2008. Natural flowers had been lavishly used to create and eye caching experience.

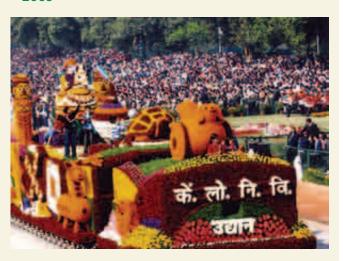


2008 (60th years of Independences)

#### "Toy and Games"

2009

This year CPWD Floral Tableau is depicting Toys and games. The Tableau leads with first Indus valley Toys. Indus Valley people seem to have loved toys. They made many toys, such as toy Bird, toy monkeys that could slide down ropes. On the trailer part has been shown different type of toys like wooden toy, terracotta toys, and chess, modern Bat and ball kite. Middle part of the trailer shows the children's playing and enjoy with toys. The tableau would be crafted in flowers in their natural colours.



#### "Global Warming" 2010

This year CPWD Floral Tableau is depicting effect and solutions of Global Warming. These days hardly a day goes by without a news story reporting an aspect of global warming. The Tableau leads the reasons of global warming. Hence burning earth has been shown on the front part of the Tableau. Deforestation, industrial and traffic pollution, the land pollution by throwing garbage is shown on the side part of the tractor.

On the trailer part has been shown plant new trees and preserves existing trees. Middle part of the trailer shows the activities, a teacher educating children to grow more trees to keep the environment clean. We educate children to be eco- friendly and to protect our environment. Back part of the trailer show the lovely glaciers where young children are enjoying the nature's beauty.

On the side panel it has been shown that animals are moving freely around the protected environment. The tableau would be crafted in flowers in their natural colours.





### "Save the Tiger, Save Earth"

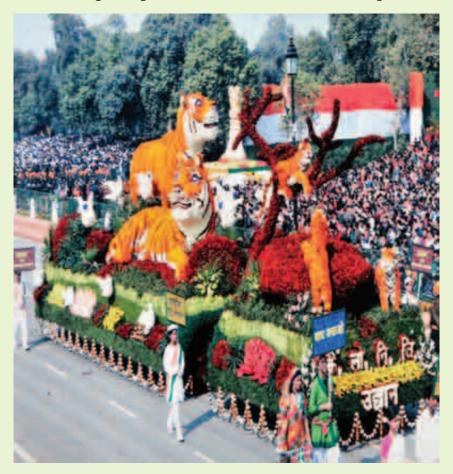
These days hardly a day goes by without a news story reporting an aspect of save tigers. India has been home to Tigers for a very long time. Tigers were found all over India and still as many as 16 States of India are home to the Tigers. The latest census report released on 12th. February, 2008 by the Government of India reports that there are only 1411 tigers left. The population of the Tiger has been reduced by nearly 50% and that too in a period of 6 to 7 years.

It is time that emergency and drastic steps are taken to save the pride of jungle and pride of India from becoming extinct. Agriculture, industrialization and degradation and fragmentation of natural habitats, forests and natural grasslands are one of the main reasons for the decrease of Tiger population and for that matter all wildlife in India. The immediate effect of this is lack of natural food and habitat causes the wild animals to come out of the forest area.

If we make sure tigers live, we will have to make sure that deer, antelope and all other animals that the tiger eats or its prey base live. To make sure that these herbivores live, we must make sure that all the trees, grass and other plants that these prey animals need for food are protected. In short, in this way the whole forest gets saved! Saving the tiger means indirectly saving the forests and in turn saving the environment that is reeling under global warming due to massive deforestation. Not only is tiger a beautiful animal but it is also the indicator of the forest's health. Saving the tiger means we save the forest since tiger cannot

live in places where trees have vanished and in turn secure food and water for all. This year CPWD Floral Tableau is depicting the save tigers. The Tableau leads tiger playing and enjoying the natural habitats, forest and natural grassland. Shown at the front part of the trailor.

The rear part of the trailor the pear of tiger setting on rock in its full wild majesty its natural beauty. The tableau would be crafted in flowers in their natural colour.

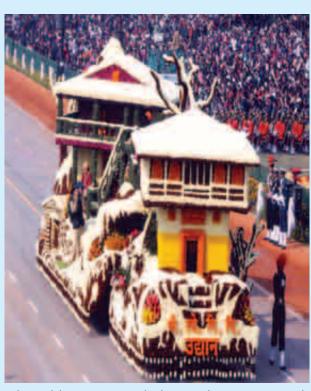


### "Snow Valley"

This year CPWD Floral Tableau is depicting SNOW VALLEY a beautiful landscape of north India. These days hardly a day goes by without a news story reporting an aspect of global warming. There is no doubt that global warming is felt in many ways now and this will worsen. Effects are, and will, be increasingly noticeable in these areas.

We educate children and tourist to be eco- friendly and to protect our environment. All the activities show the people are having fun and enjoying in fresh nature. On an average snowfall patterns have changed across the glaciers are melting rapidly. To stop deforestation and to protect our environment.

The trailer shows the lovely glaciers where young children are enjoying the nature's beauty. The tableau would be



crafted in flowers in their natural colours. The tableau is intended to make an extremely eye pleasing experience by using natural flowers lavishly.

## "Seasons" (Ritus)



C.P.W.D. Floral Tableau is depicting the cycle of seasons (Ritus). Front portion of the Tableau displays "Vasant Ritu" (Spring season), Shown by dancing boy and girl. The front part of the trailor is showing "Grishma Ritu" (Summer season). Middle part of the trailor is showing "Varsaha Ritu" (Monsoon season) depicted as dancing peacock and water fall, after that deciduous tree is shown in "Sharad Ritu" (Autumn season), followed by bonfire by the live characters under "Hemant Ritu" (Pre-winter) and snowy mountain under "Sisir Ritu" (Winter season). The whole Tableau is crafted by beautiful and vibrant colorful fresh flowers.

#### FLOWER SHOW AND GARDEN COMPETITION

#### **CPWD Flower Show 2012**

Directorate of Horticulture, CPWD organized the flower show on 2nd & 3rd March, 2012 after the gap of 15 years at the Government Sunder Nursery at Nizammudin. It was inter divisional cum inter departmental flower show and garden competition. All the Horticulture Departments of Delhi like NDMC, MCD, DDA, DJB, DSIIDC, IGNOU and Northern Railway participated in the show. There were many stalls of Horticultural tool and plants, various seed companies, insecticide and pesticides and nurserymen. They all have exhibited their latest products and new varieties, which were very beneficial to the visitors, garden lovers, amateurs and public at large. The show was inaugurated by Hon'ble Secretary, Ministry of Urban Development, Dr. Sudhir Krishna and prize distribution was given by Er C.S. Prasad, Director General, CPWD. All the participants participated with full interest and high enthusiasm. The show was covered by print and electronic media of Delhi.



Inauguration of Flower Show on 2nd March 2012 by Dr. Sudhir Krishna, Secretary, Ministry of Urban Development, Govt. of India alongwith Shri S.K. Mittal, A.D.G. CPWD & Shri Rakesh Mishra A.D.G CPWD.



Dr. Sudhir Krishna, Secretary, Ministry of Urban Development, CPWD, Shri S.K. Mittal, A.D.G. & Shri Rakesh Mishra, A.D.G. CPWD inspecting the flower show.



Dr. Sudhir Krishna, Secretary, Ministry of Urban Development, CPWD, Shri S.K. Mittal, A.D.G. & Shri Rakesh Mishra, A.D.G. CPWD inspecting the flower show.



Dr. Sudhir Krishna, Secretary, Ministry of Urban Development, CPWD, Shri S.K. Mittal, A.D.G. & Shri Rakesh Mishra, A.D.G. CPWD inspecting the flower show.



Shri C.S. Prasad, D.G. CPWD, & Shri Rakesh Mishra, A.D.G. CPWD inspecting the flower show on 3rd March 2012.

#### FLOWER SHOW AND GARDEN COMPETITION

#### **CPWD Flower Show 2013**

Directorate of Horticulture, CPWD organized the flower show on 1st & 2nd March, 2013 at the Government Mehrauli Nursery at Shaheed Jeet Singh Marg, opposite NCERT, New Delhi 110016. It was inter divisional cum inter departmental flower show and garden competition. All the Horticulture Departments of Delhi like NDMC, MCD, DDA, DJB, DSIIDC, IGNOU and Northern Railway mainly participated in the show. There were more entries than the previous year more exhibits were displayed and likewise more stalls were exhibited their latest techniques, technology advances and their produce, which were very beneficial to the visitors, garden lovers, amateurs and public at large. The show was inaugurated by Hon'ble Secretary, Ministry of Urban Development, Dr. Sudhir Krishna and prize distribution was given by Er. V.K. Gupta, Director General, CPWD. All the participants participated with full interest and high enthusiasm. Floral animals were the main attraction during the flower show. The show was widely covered by print and electronic media of Delhi. It was also live on FM 93.5 radio channel during the show.

Inauguration of Flower Show on 1st March 2013 by Dr. Sudhir Krishna, Secretary, Ministry of Urban Development, Govt. of India alongwith Shri V.K. Gupta, D.G. CPWD, Shri Ashok Khurana Ex. D.G CPWD.



Inauguration of Flower Show on 1st March 2013 by Dr. Sudhir Krishna, Secretary, Ministry of Urban Development, Govt. of India alongwith Shri V.K. Gupta, D.G. CPWD, Shri Ashok Khurana Ex. D.G CPWD.



Dr. Sudhir Krishna, Secretary, Ministry of Urban Development, CPWD alongwith Shri V.K. Gupta, D.G. CPWD inspecting the flower show.



Shri V.K. Gupta, D.G. CPWD & Shri Akhilesh Kumar, D.D.G. (Hort.) inspecting the Flower show on 2nd March 2013.



Prize Distribution Ceremony CPWD Flower Show on 2nd March 2013



Shri V.K. Gupta, D.G. CPWD giving the trophy to Dr. B.C. Katiyar, Director of Horticulture (NDR).



Shri Vijay Motwani A.D.G. (NDR) CPWD & Shri Ashok Khurana Ex.D.G. CPWD, inspecting the Flower show on 2nd March 2013.



Shri Vijay Motwani A.D.G. (NDR) CPWD, inspecting Spot Garden during Flower show on 2nd March 2013.

#### **Bougainvillea Festival 2013**

Bougainvillea society of India is one of the oldest societies in Delhi, with its Headquarter located at Indian Agricultural Research Institute (IARI, PUSA), New Delhi. This society strive its best of the benefit of public and garden amateurs by disseminating the latest technologies developed by IARI and other R&D organizations in the form of shows, trainings, conference, seminar, symposium, workshop and interactions etc. The society was founded by Dr. B.P. Pal (First Director General of ICAR) a great visionary and articulated technocrat who always worked hard for the benefit of the farmers and making the environment clean and tidy during his life span.

One of the main objective of the society who organize bougainvillea festival every year to create awareness in Horticulture among the amateurs and professional garden lovers. This year the bougainvillea festival was organized at Buddha Jayanti Park with the help of Directorate of Horticulture, CPWD on 23rd & 24th March, 2013. There were many participants like IARI, NDMC, CPWD, DDA, MCD, DJB, DSIIDC, Northern Railway and many other corporate houses like Maruti Suzuki India Ltd., other garden lovers and individuals. The show was inaugurated by Hon'ble Secretary, Ministry of Urban Development, Dr. Sudhir Krishna and prize distribution was given by Er Vijay Motwani, Additional Director General (NDR), CPWD. All the participants

participated with full interest and high enthusiasm. Floral animals were the main attraction during the flower show. The show was widely covered by print and electronic media of Delhi. The show was live on the FM Rainbow of All India Radio, New Delhi.

#### **Bougainvillea Festival**



Inauguration of Bougainvillea Show on 23rd March 2013 by Dr. Sudhir Krishna, Secretary, Ministry of Urban Development, Govt. of India alongwith Shri Diwakar Garg A.D.G. (S&P) CPWD, Shri Vijay Motwani, A.D.G (NDR) CPWD.



Dr. B.C. Katiyar, Director of Horticulture (NDR) CPWD welcoming with bunch of flowers to Dr. Sudhir Krishna, Secretary, Ministry of Urban Development, Govt. of India.



Dr. Sudhir Krishna, Secretary, Ministry of Urban Development, CPWD inspecting the Bougainvelliea Festival at Buddha Jayanti Park.



Indian Bougainvillea Annual Vol. 25- 2013 book is being released by Dr. Sudhir Krishna, Secretay, Ministry of Urban Development, Govt. of India.



Sh. Vijay Motwani, ADG, CPWD, is being honoured by the Bougainvelliea Society



Dr. B.C. Katiyar, Director of Horticulture (NDR), receiving 1st Prize in the Bougainvelliea Festival by Sh. Vijay Motwani, ADG(NDR), CPWD



Indian Bougainvelliea Annual being unveiled by Sh. Vijay Motwaini , ADG(NDR), CPWD during the Bougainvelliea Festival 2013.



Inauguration of Bonsai House at Government Sunder Nursery on 3rd March 2012 by Shri C.S. Prasad, Director General, CPWD.

### 8<sup>th</sup> International Flora Expo 2013

The CPWD had participated in the show by displaying photographs of Tableaux made of flower at R.D.C., Horticulture Landscaping, development and maintenance work. The pavilion was decorated with different cut flower arrangements. The different development and maintenance of Horticulture work done by CPWD were also displayed in slide form. The pavilion was highly appreciated by the public, DG (CPWD) and Joint Secretary (Ministry of UD).



Sh. Ashok Khurana D.G. CPWD, at prize distribution ceremony at 8th International Flora Expo 2013 at Okhla, New Delhi

# CPWD stall in 8th International Flora Expo 2013 at Okhla, New Delhi

CPWD stall has been display in 8th International Flora Expo 2013 at Okhla, New Delhi where in all the activities of the Horticulture Wing have been displayed. A large number of visitors visited in the stall including Director General CPWD, and Joint Secretary Ministry of Urban Development and appreciated it.





Sh. Chitranjan Khaitan, Joint Secretary, Ministry of Urban Development & Sh. Akhilesh Kumar, Dy. Director General (Hort.) visiting the 8th International Flora Expo 2013 at Okhla, New Delhi



Dr. B.C. Katiyar, Director of Horticulture (NDR) & Sh. Akhilesh Kumar DDG(Hort) receiving award at 8th International Flora Expo 2013



Sh. Ashok Khurana, D.G. CPWD, inspecting the CPWD stall in 8th International Flora Expo 2013 at Okhla, New Delhi



Sh. Ashok Khuran, D.G. CPWD, is being greeted by Sh. Akhilesh Kumar, Dy. Director General (Hort.) CPWD at 8th International Flora Expo 2013 at Okhla, New Delhi

#### **SPECIMEN BONSAI PLANTS**

Bonsai comprises a tree or shrub planted in a small container for developing as a miniature plant showing the general appearance of that plant species found in nature. It differs from a pot plant where the foliage and flowers are important, whereas for Bonsai the appearance of the plant in a miniature form is to be maintained for many years. The Government Sunder Nursery is also making Bonsai plants by their trained staff by binding with wire, shaping them, cutting them, training them, fixing moss grass, using small pebbles repotting, watering and selling to the public also. The Government Sunder Nursery is having specimen collection of bonsai, some of them donated by Shri Agnihotri. These bonsai are preserved in the nursery for imparting training to the scholars as well as to the public. The new bonsai house was also constructed at Government Sunder Nursery and inaugurated by DG, CPWD on 3rd March 2012. The specimen bonsai were displayed in various flower shows and won many prize in the flower show.

- **1. Khirni (Manilkara hexandra)** It is a slow growing evergreen tree. The bark is grayish black and rough. The wood is used for big beams. Its fruits are edible.
- 2. Saptaparni (Alsotnia schloris) The name schloris means children used the slated made from wood of tree for writing purpose. In october small green fragrant flower appear. All parts of the trees is poisonous. The dark green leaves form whorls of 4-7 and regular branching give s tree a beautiful shape.





KHIRNI

- 3. Pakur/Pilkhan (Ficus infectoria) The trees can grow upto 10mtr. to 12 mtr. The leaves are glossy, green thick, copper new growth. The white flower appears in spring.
- 4. Pipal (Ficus religiosa) It is a semi evergreen tree, normally grown on roadside, near temple. It is a religious tree of India. The leaves are broad cordate in shape. The fruit is a small fig green ripening to purple.



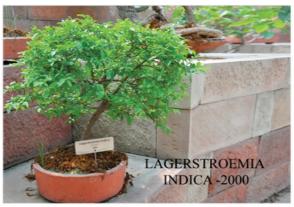
**PAKUR** 





PIPAL FICUS

- **5. Ficus (Ficus long island)** For making bonsai 3 to 5 year old plant is selected. The height of the bonsai can be maintained upto 30cm. The Bonsai plants require 3 to 4 hours sunlight. The leaves are leathery and thick and branches can be easily train.
- **6. Savani (Largestromia indica)** It is deciduous tree grows near rivers. The plants have separate male & female flowers appear in summer in white, pink or red color. Height of bonsai can be kept upto 30cm to 45 cm. The pruning is done in late spring. Wiring is essential. Informal, cascade bonsai forms from medium to extra large size.





SAVANI PUTRANJIVA

- Putranjiva (Putranjiva roxbunghii) Tree with drooping leaves having medicinal properties. Flower yellowish green leaves and fruits used for rheumatism.
- 8. Bistendue (Diospros Montana) It is a small deciduous tree. The stem is having thorns. The male and female flower grow on separate trees. The flower are creamy white. The fruit is cherry became yellow after ripening. Flowering in March April.



**BISTENDUE** 

9. Ficus (Ficus tsiela) – The tree is large spreading tree without aerial roots. Leaves coriacepus. Fruits when ripe become purple during April to October. A good avenue tree.





FICUS (FICUS TSIELA)

 $P\Delta PRI$ 

- **10.** Papri (Pongamia glabra) It is also called pongam oil trees. The oil kept away the insects from the skin. The oil of the seeds beneficial in treating skin disease and antimicrobial.
- **11.** Amrood (Psidium guajava) The tree became tall upto 15 mtr. Height having leathery leaves small fruits but very sweet and white flowers in March & October.





AMROOD SCHEFFLERA

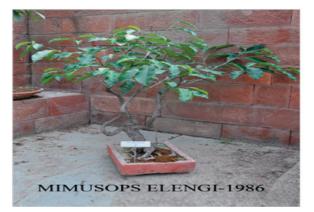
- **12.** Schefflera (Schefflera sp.) It is having more than one leaflet. Due to the wood and bark it is bit difficult to shape with wire. The cutting of branch a new apex grown on the cut.
- 13. Savani (Largestromia indica) dwarf The plant is attractive to bees, butterflies and birds, due to violet/ lavender color flowers. The plant can be grown by soft wood cutting. Average water requirement bloom in April. The leaves are shiny/ Glossy.



SAVANI

- **14.** Ficus (Ficus panda) The Bonsai plant of this plant can be made in one month by using air layering. It is big tree having shinning leaves.
- **15.** Maulsiri (Mimusops elengi) The plant is having small shiny leaves. The flower are tiny cream colored fragrant star shaped. In the morning the flower spread scent in the air. The





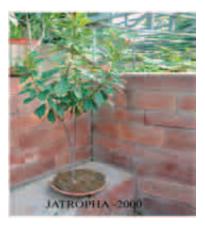
FICUS PANDA PAPRI

flower are offered in temples and shrines. Fruits are eaten fresh. It medicinal value is to prevent the bad breath and keep the gum healthy.

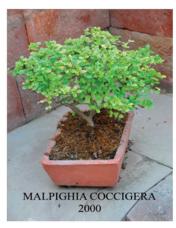
- 16. Limonium (Limonium sp.) It is a herbaceous perennial plant produce from a rhizome. The leaves are simple the flowers are of pink, violet or purple color. The fruits is small having single seed. These are grown "as everlasting flower.
- LIMONIUM-2000

**LIMONIUM** 

- 17. Jatropha (Jatropha sp.) It is small flowering plants. The plant is resistant to drought and pests and produce seeds. Seed is used for extracting future biodiesel. The flower appear from April to Sept.
- 18. Malpighia (Malpighia coccigera) The plant is having less height, toothed leaves, pinkish/ white flower throughout the year. It makes a beautiful bonsai. It has light fragrance. Height of the plant 15.
- 19. Chiku (Achras zaptoa) It is much branched tree upto 8mtr. Height. Flower are hairy outside. Fruit sare brown and fleshy, having 5 or more shiny blackish brown seeds. The fleshy part is sweet with flavor. Seeds are diuretic, and antipyretic. It contain sapotin ( which is rich source of sugar, protein, vitamins c and mineral).







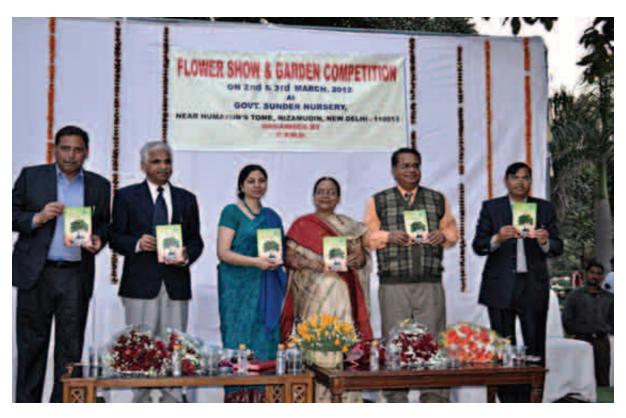
MALPIGHIA

MALPIGHIA

CHIKU

#### TRANSPLANTATION OF TREES

Transplantation of trees are the need of the hour due to the conditions urbanization and infrastructural development in the developing country like India where infrastructural development is taking very fast. If any tree comes in the alignment of any construction site then, instead of mercilessly cutting it, all efforts should be made to save the tree and the same should be transplanted. It is more pertinent in the construction organization like CPWD, due to the dire need of transplantation in the construction sites/landscaping projects and instant gardening requirements. Therefore CPWD Horticulture Directorate published a book on the transplantation of trees in the year 2012 and the same had been unveiled by the then Director General of CPWD Er. C.S. Prasad during the flower show and garden competition held at Sunder Nursery on 3rd March 2013.



Release of book on 3rd March 2012 by Sh. C.S. Prasad, Director General CPWD, on "Transplantation of Trees"

#### **FLORAL DESIGNS**

#### 1. Republic Day Celebration 2013 at Rajpath (Rostrum)

Floral Rostrun made in front of saluting dias during Republic Day Celebration 2013 at Rajpath is made of fresh and colourful flowers. The whole areana has been beautified with the tri colour in the back ground followed by Areca Palms and beautiful floral pots, thereafter two peacocks have been shown either side of the Indian map. In the front side of the enclosure facing towards Rajpath beautifully arranged flowers can be seen in the festive manner.



#### 2. ASEAN-INDIA Commemorative Summit 2012 at Vigyan Bhawan

Ministry of External Affairs organized the ASEAN-INDIA Commemorative Summit 2012 from December 20-21, 2012, New Delhi. The Prime Minister was the host. Heads of States/Government from 10 ASEAN member countries & from India and Secretary General, ASEAN attended the meeting. The ASEAN-India Commemorative Summit 2012 was the most high-profile event in India in recent times as the relationship was ASEAN is central to india's 'Look East Policy'.

One of the highlights of the Commemorative Summit was the flag down of the ASEAN India Car Rally which was held on 21 December 2012 from 11:00 hrs at Vigyan Bhawan. Prime Minister and Smt. Gursharan Kaur together with the 10 Heads of State and spouses flagged down 11 Rally Cars, followed by speeches. This event was extremely high profile, being attended by VVIPs both from the ASEAN countries and India plus media. There was live telecast of this event in all the ASEAN countries.

Every effort was made to ensure that the Summit projects India in the best possible light. Efforts were made to ensure that visiting delegates (including the



Heads of States and Government) were exposed to the best Indian products. Due attention was given to the fact that compromises in quality and services will certainly cause irreparable damage to our national prestige and honour.





#### 3. Petrotech India -2012

## 10th International Oil & Gas Conference and Exhibition 14th – 17th October 2012 at Vigyan Bhawan, New Delhi, India

PETROTECH-2012 is being organised under the aegis of the Ministry of Petroleum & Natural Gas, Government of India, by Indian Oil Corporation Ltd. and PETROTECH.

The PETROTECH series of conferences has gathered momentum and emerged as a movement uniting the upstream, midstream and the downstream sectors. Each PETROTECH conference has been unique in its approach while ubiquitous in its aim to provide cleaner, greener and sustainable energy. It has been able to garner an enviable reputation in the

international circles as one of the coveted forums for the global hydrocarbon industry. PETROTECH-2010 attracted over 3400 delegates including about 390 foreign delegates including ministerial delegates. There were 356 exhibitors including 205 international firms and country pavilions besides presentation of 368 poster papers and 74 oral papers.

When it comes to sustainable energy, India has laid emphasis on exploring innovative ways to drive energy economics. Taking the environmental issues into concern, PETROTECH has given a hand to



many green causes. With a plethora of topics and technical sessions, 2012 will not only sow the seeds of a vibrant future but also engage you in a memorable and eventful four days of extravaganza.





## 4. Flower Decoration at Vir Bhumi (Samadhi of Late Sh. Rajiv Gandhi, Former Prime Minister of India)

Vir Bhoomi stands near the memorials of Sh. Mahatma Gandhi (Father of Nation) & other prominent leaders of the country on the Mahatma Gandhi Marg (Main Ring Road) New Delhi.

Sh. Rajiv Gandhi was India's youngest Prime Minister when he was sworn in as the Prime Minister of India in 1984. Unfortunately Sh. Rajiv Gandhi assassinated by an LTTE lady suicide bomber in 1991 and India lost one of its most dynamic and visionary Prime Minister. Vir Bhoomi (the land of the Brave) is a memorial dedicated to him, where he was cremated. The campus of Vir Bhoomi is around 22.30 acres. It has 950 Nos. of trees of 54 different species. The lawns of this site is seen covered with well trimmed green grass and lined with trees, plants and shrubs that add on heavenly look to the entire area and its surroundings.



As a sign of respect, one has to take off his footwear to visit the scared site and can also attend the special prayer sessions held every 20th of August (Birthday) and 21st of May (Death Anniversary) every year in order to remind us of the dreams and aspiration he had for his country and admire the fact that after his demise.

## 5. Flower Decoration at Shanti Van. Shanti Vana (Samadhi of Late Sh. Pt. Jawahar Lal Nehru, Former Prime Minister of India)

One of the most able sons of India who not only shaped India's destiny but also played an instrumental role in framing the future of the world, Pandit Jawaharlal Nehru was cremated

here at the Shanti Vana. The Campus of Shanti Vana is around 60.00 acres area including forest and lawn area. It has 2776 Nos. of trees of 65 different species.

Shanti Vana or the Forest of Peace truly lives up to its name. Lush greenery, sprawling gardens, numerous trees & saplings keep the atmosphere cool & serene. The stretches of greenery run endlessly and in almost every nook & corner, a beautiful plant stands in humility to welcome you.

All the visiting dignitaries & the heads of the states include a visit to Shanti Vana as an integral part of their itineraries. As a sign of



respect, one has to take off his footwear to visit the sacred site of his cremation on 27th May of every year. On 14th November of every year, which is his birth anniversary, he is remembered & honoured by the country's people; and for his ardent love for kids, 14th November has been recognized as National Children's Day.

Certain prayer sessions & cultural programmes are organised in Shanti Vana to celebrate the event. The place provides you with an absolute peace & calm and has a perfect atmosphere for meditation.

## 6. Flower Decoration at Kissan Ghat. Kisan Ghat (Samadhi of Late Sh. Ch. Charan Singh, Former Prime Minister of India)

The literal meaning of Kisan Ghat is "Farmer's Court". Kisaan Ghat is the Memorial of Chaudhary Charan Singh, was the sixth Prime Minister of India. He born 23rd was on December 1902 and died on 29th May 1987. He was appointed as a prime minister of India for a very short period in 1979. The area of Kisan Ghat has a beautiful park sorrunded with trees planted by visiting dignitaries and heads of state. The campus of Kisan Ghat is around 8.84 acres area. It has 255



Nos. of trees of 19 different species.

As a sign of respect, one has to take off his footwear to visit the sacred site of his cremation on 29th May of every year. On 23rd December of every year, which is his birth anniversary, he is remembered & honoured by the country's people.

#### 7. Under Ground Parking Nirman Bhawan, New Delhi

Nirman Bhawan was constructed in 1965. Over the years there has been an exponential increase in number of vehicles coming to Nirman Bhawan. As a result parking demand is

increasing day by day. Considering the increasing parking demand construction of Under Ground parking has been taken up in Nirman Bhawan. Under Ground Parking provide additional parking spaces below ground level, increasing the use of space where there is no possibility of horizontal expansion. Spaces below ground or offices are widely used for parking purpose, which is an essential demand to be satisfied in a Government buildings or public buildings. The landscaping was done by Horticulture wing of CPWD.

The Foundation Stone was laid on 07.09.2011 by Hon'ble Sh. Kamal Nath, Minister of Urban Development, Government of India,m The inauguration was also done on 08.05.13 by Hon'ble Minister of Urban Development.





Hon'ble Minister of Urban Development unveiling the inauguration stone of underground parking at Nirman Bhawan on 8th May 2013.



Hon'ble Minister of Urban Development inaugurating the underground parking at Nirman Bhawan on 8th May 2013.



Hon'ble Minister of Urban Development inaugurating the underground parking at Nirman Bhawan on 8th May 2013.

#### SOME GUIDELINES ISSUED BY GOVERNMENT

- (a) Pruning of trees:- Permission for pruning of trees is to be obtained from Deputy Conservator of Forest Govt. of Delhi and without permission the pruning of trees is an offence and Forest Department/Police may initiate action against it.
- (b) Cutting/Felling of trees:- The citizen charter issued by Department of Forest, Govt. of Delhi is enclosed. It is also to mention that payment of Rs. 28500/- in advance per tree is to be paid to the Forest Department and 10 Nos. of trees to be planted after cutting the trees.
- (c) Transplantation of trees: Similar rules are applicable for transplanting/felling of trees.
- (d) Adequate space to be left around trees:- An area of 6' x 6' around the trees is to be left uncemented vide No. 5- DDR/VIP/2000 DDVI dated 21.07.2000 Ministry of U.D Govt. of India and vide High Court order W.P. (C) No. 1772/2007 date d198.09.2007.

#### **CITIZEN'S CHARTER**

The Forest Department is extending service in the following fields and by this charter the Department seeks to provide framework and information which enables the public to know about:

- A. Felling and removal of trees anywhere in the National Capital Territory of Delhi.
- B. Distribution of seedlings free of cost to public
- C. Enforcement of Indian Forest Act, 1927 and the remedies available
- D. Enforcement of Wildlife Act, 1972 and the remedies available
- E. Applicability of Forest Conservation Act, 1980
- F. Enforcement of Tree Preservation Act, 1994 an the remedies available
- G. Duties of public in general

#### Details of above service are :-

### (A) FELLING AND REMOVAL OF TREES ANYWHERE IN THE NATIONAL CAPITAL TERRITORY OF DELHI.

- a. Permission to fell trees is regulated under provisions of Delhi Tree Preservation Act, 1994, a copy of the same may be obtained from the Government Printing Press.
- b. If a private individual/company wants to fell tree/trees anywhere in Delhi owned by them an application, in Form 'B' has to be made to the Tree Officer, Dy. Conservator of Forests (South/Central/West) and to Conservator of Forests, Delhi. The forms are available with the nearest Forest Office. Licences to fell trees can be given only 1Ha. Area of Khasra No. and only 2 licences can be issued in a year in respect of one property. The permission for felling is deemed to have been granted if no reply is received from the Tree Officer within 60 days. The applications complete in all respect will only be entertained by Tree Officer.
- c. After obtaining permission, the individual/Company should fell the trees within the time limit prescribed in the licences.

- d. If any tree is causing danger to life and property, the owner of the land may fell the tree and report the fact within 24 hours and such intimation should be made in Form 'A'.
- e. It is for each individual and Company to effectively protect all the trees growing in their areas.

#### Remedies:

a) If an individual/Company is not satisfied with the order passed by the Tree Officer regarding felling permission, he/Company may file an appeal with the (Appellate Authority), within 30 days from the date of order of Tree Officer. The Appellate Authority under the Delhi Preservation of Tree Act is Secretary (Environment, Forest & Wildlife), Govt. of NCT of Delhi, Delhi Sachivalaya, New Delhi - 110 002.

#### (B) DISTRIBUTION OF SEEDLINGS FREE OF COST TO PUBLIC:

The Forest Department distributes seedlings free of cost to public for the purpose of plantation on any land. The seedlings are available from the following Nurseries:

S.NO.	NAME	PH. NO.
1.	Kamla Nehru Ridge	23923561
2.	Anand Vihar (I.S.B.T.)	22166232
3.	Bhairon Marg, Ring Road	
4.	Old Yamuna Bridge	
5.	Hauzrani City Forest, M.B. Road	26561439
6.	Alipur City Forest, Old Seed Farm	27204688
7.	Brar Square Nursery (Nrar Rly. Crossing)	25696875
8.	Phoonth Kalan	25483026
9.	Badli Nursery, Near Rly. Station	
10.	Najafgarh Forest Nursery, Old B.D.O. Office	
11.	Karkari Nursery, Najafgarh	
12.	Devli Pahari Nursery, Behind Sainik Farms	
13.	Tughlakabad Nursery, Near Shooting Range	26094711
14.	Birla Mandir Nursery	23361879

The saplings of Neem, Jamun, Gulmohar, Kanner, Peepal, Alstonia, Kachnar, Arjun, Bombax, Papri, Philkan, Jungle Jalebi, Kachnar etc., are available at the above nurseries. The department monitors the survival of plantation from the above distributed saplings from the beneficiaries.

#### (C) ENFORCEMENT OF INDIAN FOREST ACT, 1927 AND THE

#### **REMEDIES AVAILABLE:**

a. Cutting of Tree from the Govt. forest areas is prohibited. The offence is punishable with imprisonment which may exceed 6 months or fine which may extend to Rs. 500/-

- b. However a forest offence under the said Act can be compounded by paying value of forest produce or compensation which may extend to Rs. 10,000 or both.
- Any forest area can be constituted as Reserved forest by issue of notification under section
   4 of the Act and the individuals having any.
- d. An individual may approach the Forest Settlement Officer, A.D.M. (HQ.), Tis Hazari, Delhi, with their claims for excluding the same in writing.

#### (D) ENFORCEMENT OF WILDLIFE ACT, 1972 AND THE REMEDIES AVAILABLE:

- Obtaining ownership certificate in respect of possessing any wild animals or its trophy. Under Section 42, the Chief Wildlife Warden may for the purpose of Section 40 issue a certificate of ownership in such form as may be prescribed to any person who in his opinion is under lawful possession of any wild animal or any article trophy, uncured trophy and may wear possible make in the prescribed of identification. In this regard also the person should meet Wildlife Officer, to sort out the matter.
- b. Hunting of Wild animal protected under the act is prohibited.
- c. Trade and possession of articles of wild animals is prohibited under the act.
- d. Act empowers the center & state government to declare any forest area as National Park or Wildlife Sanctuary.
- e. Offences against the wild animal or hunting in the sanctuary or National Park are punishable under the Act. Punishment under the act varies from 6 months to 7 years imprisonment or fine from Rs. 5000/- to Rs. 25000/- or both depending upon the gravity of offence.
- f. Chief Wildlife Warden, Govt. of NCT of Delhi is empowered to implement the provisions of Act within territory of Delhi.

#### (E) APPLICABILITY OF FOREST CONSERVATION ACT,1980 :

As per the provisions of this Act, no forest can be diverted for non forestry purpose without prior approval of Ministry of Environment & Forest, New Delhi. As per recent interim order of Hon'ble Supreme Court of India, an Expert Committee has been set up by the State of National Capital Territory of Delhi to identify forest. The Committee has adopted authority of 250 or more trees per hectare on a continuous area of minimum one hectare for identifying the forests irrespective of ownership. On all such lands provision of Forest (Conservation ) Act, 1980 will be applicable.

#### (F) ENFORCEMENT OF TREE PRESERVATION ACT, 1994 AND THE REMEDIES AVAILABLE:

- a. Felling, removal or disposal of any tree or forest produce in any land whether in his ownership or occupancy or otherwise except with the previous permission of the tree officer is an offence under the Act.
- b. "to fell a tree" with its cognate expression, means serving the trunk from the roots, uprooting severing the trunk from the roots, uprooting the tree and includes bulldozing, cutting, girdling, lopping, pollarding, applying arboricides, burning or damaging a tree in any other manner.
- c. "tree" means any woody plant whose branches spring from and are supported upon a trunk or body and whose trunk or body is not less than five centimeters in diameter

- at a height of thirty centimeters from the ground level and is not less than one meter in height from the ground level.
- d. Any person who fells a tree on conviction can be punished with imprisonment which may extend to one year or with fine which may extend to Rs. 1,000/- or both.
- e. However a forest offence under the said Act can be compounded by paying value of forest produce or compensation which may extend to Rs. 10,000 or both.

#### (G) DUTIES OF PUBLIC IN GENERAL:

- a. It is the duty by law abiding individual to inform the nearest Forest Officer regarding fires in Government forest and also any information regarding commission of forest offence such as cutting of trees, killing of wild animals, trade in Wildlife articles/trophies etc. A control whom has been set up at the Divisional Head Quarter of every Tree Officer, where any complaint regarding Forest & Wildlife offence at Phone No. 23923561/26094711/23361879/23378514
- b. A Tree Help Line has been set up to attend any complaints regarding felling or damaging the trees including lopping at Phone No. 23378513.

#### **COMPLAINTS & GRIEVANCES:**

a. Even with best of service provided by the Department there will be occasion when other services may not meet the requirement of public. In that event the public may use the complaint box to air their grievances which are kept in offices of Range Forest Officer's, Dy. Conservator of Forest and Conservator of Forest.

#### **PUBLIC NOTICE**

## GOVT. OF NCT OF DELHI DEPARTMENT OF FOREST & WILDLIFE

2ND FLOOR, A-BLOCK, VIKAS BHAWAN, IP ESTATE, NEW DELHI-110002

As enshrined in the Constitution of India under Article 51-A (g), it is duty of every citizen of the country to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures. Section 11 of the Delhi Preservation of Trees Act, 1994, further obliges the owners of the land to ensure that the tree grow well and preserved well. -

It has recently come to the notice of the Tree Authority, constituted under Section 3 of the Delhi 'Preservation of Trees Act, 1994 that girdling, nailing, putting up hoardings and lightings, lopping, application of arboricides, acids not only cause irreparable damage to the trees but also result in their death in extreme cases, which is violation of the provisions of the aforesaid Act or Rules or orders made there under and is on conviction, punishable with imprisonment up to one year or with fine up to one thousand rupees or with both.

However, considering the importance of trees in negating the effects of climate change and improving the environment in Delhi, all concerned are hereby requested to preserve the trees in their respective localities and protect them against any such damage for their healthy and luxuriant growth. It is, therefore, requested that incidence of any such damage may be reported to the following authorities in the Department of Forests & Wildlife, Govt. of NCT of Delhi for taking appropriate action in accordance with the provisions made in the Act aforesaid:

1	Conservator of Forest	9868948253	23370506
2	Dy. Conservator of Forest & Tree Officer (West)	9868224096	23361879
3	Dy. Conservator of Forest & Tree Officer (North)	9968312090	23853561
4	Dy. Conservator of Forest & Tree Officer (South)	9868948319	26044711
5	Dy. Conservator of Forest & Tree Officer (Protection)	7838595870	23379627
		9968263738	

This issues in public interest DIP/0752/2012-13

Sd.-

**Conservator of Forest** 

#### HARM A TREE SPEND ONE YEAR IN JAIL, PAY Rs. 1000/- FINE

#### Hindustan Times dt. 29.10.12

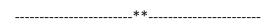
The Delhi government has decided to get tough with those causing harm- such as non-permitted lopping, nailing or girdling – to trees. The Capital's tree authority will meet soon and issue fresh guidelines protect the greens. Residents will be able to upload picture of such activities on a web portal that the government is working on and penal actions will follow.

In case of charges being found true under the Delhi Preservation of Trees Act, 1994, an offender would face a jail term of upto one year or a fine of upto Rs. 1000/- or both. Even owners of trees in their own backyards cannot harm them unless not doing so may endanger life and property.

"Our inspections will continue but we want more and more people and RWAs to come for ward and register complaints. We have decided to run our tree control room 24x7 to deal with such complaints more effectively," a top government official told Hindustan Times.

Commencement of a city wide tree census is also on the agenda. "Tree census has been our mandate ever since this authority was set up in 2007. Unless you have identified and marked trees, you will never know if some of them have been felled. We're consulting RWAs on how we can go about a tree census in the capital," he said. The tree authority's meet will also clear the air on the issue of pruning the trees. "Also, since the forest department takes time in deciding on permissions sought for tree felling, the process has to be expedited," he said. "We will also study proposal of various Government Department's & Private bodies for the construction of buildings, roads, factories, irrigation works, laying electric, telephone, telegraph & other transmission lines with regards to protection of existing trees & planting of more trees where ever possible", the official said.

"The authority will also work on development and maintenance of nurseries, supply of seeds, saplings and trees to those willing to plant tree.



# No. 5- DDR/VIP/2000-DDVI Ministry of Urban Development and Poverty Alleviation (Delhi Division)

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Nirman Bhawan, New Delhi Dated 21st July 2000

#### **OFFICE MEMORANDUM**

**Sub:** Environmental damage use to unnecessary and wasteful building exercises undertaken by Municipal agencies – Issuing of guidelines.

The undersigned is directed to state that after considering the view of experts Government agencies local bodies and NGO's the Guidelines for Greening of Urban Areas and landscape have been formulated. These guidelines are issued to all concerned for taking follow up action.

#### (MAHENDRA KUMAR)

Under Secretary to the Govt. of India

#### То

- 1. Principal Secretary (UD) GNCTD, Vikas Bhawan, I.P. Estates, New Delhi.
- 2. Commissioner, MCD, Town Hall, New Delhi.
- 3. Chairperson, Palika Bhawan, New Delhi.
- 4. Vice Chairman, DDA, Vikas Sadan, New Delhi.
- 5. CEO, Delhi Jal Board, Jhandewalan, New Delhi.
- 6. Chairman, DVB, Shakti Sadan, New Delhi.
- 7. DG (W), CPWD, Nirman Bhawan, New Delhi.
- 8. Engineer –In-Chief PWD(Delhi Admin), GNCTD, K.G. Marg New Delhi.
- 9. Director of Horticulture, CPWD, I.P. Bhawan, New Delhi.
- 10. Director of Horticulture, MCD, Under School Lane Fly over. Deen Dayal Upadhyay Marg, Rouse Avenue, New Delhi.
- 11. Director of Horticulture, NDMC, Palika Kendra, New Delhi.
- 12. Director of Horticulture, DDA, Vikas Minar, New Delhi.
- 13. Conservator of Forest, GNCTD, Kamla Nehru Ridge Delhi 110007.
- 14. Head of Department Floriculture IARI Pusa Road, New Delhi.

#### Copy to

- 1. APS to UDM/PS to MOS (UD)
- 2. SPPS to Secretary (UD)/ PS to JS (UD)/PS to JS(DL)/PS to DS(DD)

#### Guidelines for greening of urban areas and landscaping

- 1. To avoid use of excessive tiling of payments: porous materials to be used: Unnecessary and excessive tiling of the road side pavement should be avoided. The area around trees lined along the road should not be covered with tiling as it hampers the basic necessary function and needs of the trees i.e. root aeration and availability of water get drastically reduced. Whenever tiling is done, porous tiles preserved while taking up civic works Indiscriminate tiling of road dividers and footpaths should be avoided.
- 2. Tiling should be done only on pavements with heavy pedestrian traffic: Tiling should be only done don't on the roadside which have heavy pedestrian movements. In case of bridges and such areas where there are no pedestrian movement, tiling may be avoided and in case tiling is to be done, preference is to be given to porous tiles as porous materials allows seepage of ground water. The species of trees may be chosen for their pollution reduction abilities including dust trapping to avoid reliance of a single species, a combination of trees, shrubs, grasses should be grown.
- **3. Growth of grasses to be encouraged :** The necessary of grasses playing a vital role in making soil suitable for vegetation should be realized and unnecessary digging of soil should be stopped forthwith.
- **4. Excessive pruning to be avoided :** Practice of excessive pruning of crops should be avoided. Pruning of plants in a well nurtured garden and pruning of roadside plants should be differentiated Excessive pruning may lead to upsetting the root shoot ratio. Leaf pruning should not be resorted to.
- **5. Compost to be made of leaves :** Leaf is an excellent material for making of compost and burning of leaves causes pollution. A system of composting of leaves in nearby parks should be adopted which will provide water retentive manure to civic agencies. Some fallen leaves may be left near the base as water retentive mulch.
- **6.** Adequate space to be left around trees: An area of 6"x 6" around the trees should be left un-cemented. Widening of roads, upto the trunk of trees is to be avoided as roots come under the asphalted roads and will gradually die. In case of storm, these trees can topple down. Activities which adversely affect the roots are to be kept at a minimum.
- 7. Digging near trees to be avoided: Digging near the trees by allowing telephone, electricity, sewage lines should be avoided to avoid root injury, sufficient space should be left along the ground for the trees. In no case should roots be exposed. Washing avenue trees foliage may be done on a tri-monthly basis to get rid of particulate matter from the foliage.
- **8. Use of Organic Compost**: The dead trees may be replaced by young plants after providing sufficient compost in the pits. Organic manure added with compost FYM mix with nitrogen fixing bacteria culture and neem cake should be spread on the green and poured into the soil before either irrigating the tree basin or before rains.
- 9. Planting of second line trees to be encouraged: New trees which may be called as second generation trees must be planted preferably 2-3 matters behind the existing road trees in an alternate position or inside the bungalow compounds. A mix of foliage and fruit trees should be planted. Planting of fairly well established large trees should be undertaken as chances of their survival will be more. Cues of species to be adopted may be taken from the old trees hiring Delhi's roads.

- 10. Initiation of EEC Activities: Horticulture department may initiate education/awareness campaign with school students and elders and users of the park where the difficult species of trees are present in the particular park and importance about preservation of ecosystems is explained School Student may be taken for nature walks in a major garden to get them associated with the flora and fauna around them. Also the citizens of an area residing near a park can be involved for this awareness campaign.
- **11.** Compactness of soil near trees to be avoided: Compactness of soil should be avoided within at least one matter around the tree Perforated metallic frame can be used for this purpose. Soil surveys around the trees should be done by removing stones.
- **12. Setting up a Central Resource Centre :** A Central Resource Centre should be set up to aid and advise the State Government, Municipal Corporations and other development agencies dealing with matters pertaining to Horticulture and landscaping. A manual on the subject should also be prepared.
- 13. Stress on shelter beds of thick trees :- Around the cities vulnerable to desert wings, shelter-beds of special design of thick trees should be planted.
- **14. Updating technology of transplantation of trees**: Technology of transplantation of trees should be updated to ensure at least 80 percent of the success rate of planted trees. As far as possible, trees grown in the nursery with a height of four to six meters should be planted. Presently, survival rate of trees is less due to animal menace and non-caring of trees. The public participation in caring of trees planted around their houses may be ensured.
- **15. Setting up of a tree disease surgery unit in Horticulture Department :** A small tree disease/surgery unit should be created in all Horticulture departments to cure tree maladies.
- **16. Earmarking of some cost of projects for landscaping :** In any layout plan of land and housing development, at least two and a half percent of the cost of the project should be earmarked for landscaping and green development.
- **17. Use of kitchen and garden waste for compose :** Technology to use kitchen waste to fabricate building and landscaping material should be perfected and made available to all the urban development agencies.
- **18. Proper care of water fronts :** Underground water does not gets recharged sufficiently because of use concrete around them. Efforts should be made to get the water fronts recharged and these fronts kept clean.
- **19. Heritage building to be landscape :** Areas around heritage buildings should be suitable landscaping and beautified.
- **20. Greening of void areas not required for minimum construction:** Urban void areas should not allowed to exist and the area not required for immediate development or construction, should be made green and fenced with suitable landscaping. Similarly road berm/right of way required for future road widening should be landscaped and maintained as green.-
- **21. Encouragement for water harvesting technologies :** Information regarding water harvesting has to be disseminated in public and its use encouraged. It should be ensured that quality of water does not get deteriorated for which required measures are to be taken.

- **22.** For maintenance of greens internally: Criss-cross paths should be provided for in the gardens and lawns. There should be connecting gated at all corners so that people do not walk on the grass.
- **23. Public participation to be ensured :** Public participation at present is poor in maintenance of green. This has to be activated and Residents Welfare Association and to be involved in planting of new trees and in their survival. User groups need to be activated, NGO's can play a catalytic role in this. Each NGO may earmark a selected area for its activities thereby dividing the entire net area. Committee with officials from MCD, NDMC, DDA, GNCTD etc. will act as a nodal agency and will review every month or as necessary.











## **Directorate of Horticulture**Central Public Works Department

Ministry of Urban Development Government of India

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