

Reform 2015-16

1. Type of Reform: **Urban Planning and, City Level Plans**
2. Reform Milestone No.4(9): **Make action Plan to progressively increase Green cover in Cities to 15% in 5 years**
3. Status: **Achieved**
4. In case not Achieved/Partially achieved- Action to be taken and by whom
5. Documents attached:
 - A) State Forest Policy
 - B) The Punjab Municipal Green Buildings Incentives Policy- 2016
 - C) Action Plan for increase in green cover in AMRUT cities in the state of Punjab


Joint Deputy Director
Department of Local Govt. Punjab

REFORM-4
Milestone-4

(Draft)

**State Forest Policy and Strategic Plan
(2008-2017)**



**Department of Forests and Wildlife Preservation
Punjab, Chandigarh**

PART I: THE POLICY

1. Introduction

Punjab Forest Department, one of the oldest State Departments, with a proud legacy, significant record of achievements, tradition of hard work is committed to the cause of protecting, conserving and enhancing State's natural resource base and environment. The State was bifurcated in 1947 on partition of India and further trifurcated into Punjab, Haryana and Himachal Pradesh in 1966. Thus, Punjab has been left with smaller geographic area limited extent of forest resources. The Forest Department by making all-out efforts to develop and enhance state's forest resources has been able to increase its forest area from 3.72% in 1966 to 6.3% at present.

The Department has been sincerely implementing forestry programmes in accordance with the National Forest Policies of 1952 and 1988, Joint Forest Management (JFM) notification, 1990, and National Forestry Action Programme (NFAP). To create synergy among local, regional and national efforts to protect, conserve and manage forest resources on a sustainable basis, Government of India has urged the States to formulate their own forest policies in view of different sets of ecological, climatic, social-cultural and economic conditions prevailing in each State.

The State of Punjab is primarily agrarian with 84% of its area under agriculture with very high cropping intensity. Also, urbanization and industrialisation are taking place at a very rapid pace in the State causing a negative influence on its natural resources. All these activities are adversely affecting the environmental quality of land, water and air, which need to be mitigated by making suitable interventions such as adopting environment-friendly technologies, Clean Development Mechanism (CDM), suitable agroforestry and tree farming models on agricultural lands for land use diversification, and greening of community lands, institutional lands, Industrial estates and urban areas, protection of heritage trees and old trees in rural areas.

This policy provides a framework to identify and accommodate all the issues and pressures on forests and wildlife resources in the state and manage them to derive optimum environmental, social and economic benefits for the State and its residents. It describes the Government's vision, mission and specific policy objectives which will be adopted to manage the state's forest resources in future.

2. Vision

The State of Punjab shares the national vision of sustainable management of forests to meet the needs of present and future generations. This vision has following characteristics:

1. The total area under the forest and tree cover is increased through afforestation and landuse diversification.
2. The forest resources are well protected and managed to retain their integrity and biodiversity using modern technologies and scientific knowledge.
3. The forest resources are managed in an eco-sensitive and sustainable manner to optimize all types of benefits to the society.
4. Forest management is effective and responsive to the society, which has a sound perception of importance of the State's forests and participates in their protection and sustainable management.

3. Mission

To achieve the State's forestry vision, the mission of the Department of Forests and Wildlife Preservation will be:

- To increase the area under forests and tree cover from present 6.3% to 15% of the State's geographical area.
- To protect, conserve and improve the State's forests and other natural resources for improving the quality of soil, air and water.

- To practice sustainable forestry based on sound principles of sustainable forest management through use of modern technologies and scientific knowledge.
- To protect, conserve and enhance the wildlife and remnant biodiversity resources of the State by developing a suitable Protected Area Network.
- To promote non-timber uses of forests such as eco-tourism, Non-Timber Forest Produce, medicinal plants and biodiversity.
- To practice socially-inclusive forestry and solicit cooperation and participation of the rural and forest dependent communities and other stakeholders in greening the State.
- To provide technical assistance, financial incentives and extension services to the people for promoting social forestry, agroforestry and tree farming for landuse diversification.
- To implement Government policies and programmes by adopting innovative approaches for optimising social, economic and environmental benefits from the forestry sector to the state and its people.

4. Basic Principles of Forest Policy

4.1 The forest resources of the state are an environmental resource and not a revenue-earning source. Therefore the forest resources of the State need to be protected, conserved and enhanced for gaining maximum environmental benefits for the society.

To achieve this:

- Utilize modern technologies to streamline the forestry administration and scientific management of forests.
- Apply scientific research and knowledge for improving vegetation cover and productivity of State Forests.
- Protect the existing forest areas through proper survey, demarcation and raising of appropriate boundary fencing, pillars or wall and trench as per local requirement

- Undertake strong and effective management interventions to fight the menace of encroachments at all levels.
- Take effective steps to fight and stop heft and other illegal trade from forests.

4.2

To increase the tree cover in the State from existing 6.3% to 15%. by promoting social and agro-forestry activities:

- Encourage people's participation in protection and management of State's forests and other natural resources.
- Promote different models for agro-forestry and trees outside forests through extension activities, technical assistance and financial incentives for land-use diversification and improving the quality of soil, water and air for overall environmental improvement of the State.
- promote environment friendly industry for utilising and processing forest raw materials in manufacturing of value added forest products.
- Prescribe minimum extent of area to be kept under tree plantation and vegetation cover by new industries, colonies, and institutions in the State.

4.3

To protect, conserve and improve Wildlife biodiversity and genetic resources of the state by strengthening and expanding the State's Protected Area Network.

- Fight illegal wildlife activities and trade through strong interventions.
- Revise State's Protected Area Network to include all areas encompassing remnant biodiversity of the State.
- Coordinate and integrate in-situ and ex-situ programmes for conservation of wildlife and biodiversity of the State.
- Give special focus to protection and conservation of endangered species of the state.
- Institute a suitable intelligence-gathering network to check crime and illegal trade in wildlife.

4.4 To promote empathy and sensitise people about importance of forests and wildlife, biodiversity and environment through awareness, education, eco-tourism and extension activities.

- Design a new forestry extension strategy for the State.
- Promote ecotourism in wilderness areas with unique ecological values.
- Institute awards to educational institute to involve children in agreement of the state.
- Run awareness campaigns to educate people almost environmental benefits of the forest and solicit their cooperative in greening activities.

4.5 Mitigate problems related to environmental degradation and climate change through Clean Development & Mechanism (CDM) and carbon sequestration through afforestation and plantation activities.

- Develop appropriate carbon sequestration methodologies for agroforestry plantations and get it approved from CDM Authority.
- Promote landuse diversification for reduction of harmful gases from agricultural fields.

PART II: THE STRATEGIC PLAN

5. Strategic Approaches of Forest Policy

5.1 Increase Area Under Forests and Tree Cover

- Punjab has 6.3% of its area under forests. The State has 84% of its area under agriculture with a very high cropping intensity. Therefore, the State has set a target to increase area under forest and tree cover to 15% by 2017 under State Forestry Action Programme. This can be achieved through agro-forestry on farm lands and by raising trees plantations on all kinds of land in the State which may be available for this purpose. Trees outside forests (TOF) should also be given due importance as they have a major role in increasing the green cover of the State. An annual report of TOF (Species wise) can be obtained by making it a part of the Revenue Gardawri System, so as to facilitate the actual ground-truthing to achieve more realistic results from satellite imagery and GIS based assessments.
- In the Kandi Area, special steps involving vegetative and engineering measures should be taken to prevent soil erosion, land degradation thereby ensuring the stability of the fragile ecosystem of the Shiwalik Hills. Surface and sub-surface water harvesting structures for ground water recharging and microlift irrigation schemes should be promoted to improve departmental support to local communities in providing them with irrigation facilities.
- Water resources should be augmented in other parts of State as well by creating and renovating ponds and other water bodies, and undertaking trees plantations around such structures, which should aim at recharging the underground water table.
- It is necessary to encourage the planting of trees alongside roads, railway lines, rivers, drains and canals, and other unutilized/under utilized lands under state, corporate, institutional or private ownership. Green belts and pockets should be raised in residential and industrial areas as well as in the semi-arid tracts which will help in checking erosion and desertification as well in as improving the environment.

- A minimum green cover policy should be framed for the industries, colonies, institutions and other projects being established in the State.
- Greening Action Plan for the State should be developed by involving other State Departments managing land resources.
- Village and community lands should be taken up for the development of arboriculture and fodder resources. Technical assistance and other incentives necessary for initiating such programs should be provided by the Government. The revenue generated under such program should be given to concerned Panchayats and communities as an incentive to them and solicit their cooperation and participation.
- Degraded forest areas near habitations should be regenerated with the cooperation and involvement of local communities. Joint Forest Management practices should be tuned to local scenario and adjusted to changing perceptions to achieve a sustainable green cover for the state.
- Regulation for felling of the trees on private land and community holdings should be reviewed and rationalized to enhance communities' interest in planting and protecting trees on their lands. The communities should also be provided with adequate financial incentives for raising long-rotation tree crops during the lock-in period of their lands, which fall in eco-fragile or eco-sensitive areas.
- Protection and preservation of Heritage trees and old trees in rural areas with the cooperation of local communities should be ensured.

5.2 Management of the State Forests

- The permanent vegetation cover and productivity of state forestlands should be increased through afforestation, enrichment and other methods.
- Forests in the State should be well protected and managed. These should be surveyed and demarcated by fixing permanent boundaries.
- All natural features and other structures of heritage, cultural or historical importance inside the forest areas should be identified and conserved.

- There should be emphasis on multifunctional role of the natural forests and their sustainable management by formulating improved management plans using modern technologies.
- New technical manuals for all aspects such as management, planning, monitoring and evaluation, and Wildlife Management should be prepared.
- The existing Forest Manuals should be revised and updated.
- Management plans and Working plans should be objectively written and strictly followed for the forest areas covered under them and adequate financial resources should be earmarked for regeneration of harvested areas.
- Scheme and projects that interfere with forests on steep slopes, catchments of rivers, lakes and reservoirs, and ecologically sensitive areas should be severely restricted.
- Grazing in the natural forests should be discouraged and feral population of strayed cattle controlled.
- Soil and Water conservation works should be carried out wherever necessary to improve the moisture regime of shiwaliks and augment the recharge and availability of water resources.
- Strip forests along roads, canals and drains should be managed as shelterbelts and refuge for remnant biodiversity of the State and their frequent puncturing through diversion of forestland should be discouraged.
- Block forests in the plains should be cleared of invasive alien species and restored to indigenous vegetation of the area.
- Illegal extraction of any type of forest produce or its illegal trade should be tackled at all levels and stopped.
- Local people and stakeholders should be closely associated with protection, regeneration and development of forests. Any agency involved in forest management should provide gainful employment to the people living in and around forests.
- Only quality forest seedlings should be planted in afforestation and plantation programmes.

5.3. Social Forestry and Agro forestry

- The requirements of the society should largely be met by development of forest and tree resources outside the Government forests.
- Agroforestry besides offering environmental benefits offers an opportunity for crop diversification and should be popularized among farmers.
- Steps should be taken for *in-situ* propagation and conservation of medicinal plants in the Shiwaliks and other parts of the State.
- Non-timber forest produce, its collection, regeneration, protection and marketing should be institutionalized. Integrated development programmes should be undertaken to develop forest areas and their vicinity to meet the needs of local people.
- Providing Bio-energy as alternative source of energy should be one of the prime objective of agroforestry and tree farming programmes under which short rotation energy plantations should be taken.
- Most appropriate Agro-forestry models involving trees, agricultural crops and/or medicinal herbs, shrubs and climbers should be encouraged. Individuals and institutions should also be motivated to undertake tree farming and grow fodder plants, grasses and medicinal plants on their own land.
- Only high quality forest seedlings of fast growing species and those of colonial material from certified nurseries should be made available to the farmers to promote agroforestry.

5.4. Wildlife Conservation

The State government well strengthen and enhance the protected area network (PAN) to protect and conserve its wildlife and biodiversity by constituting more protected areas covering all the physiographic and climate zones of the State.

- Each protected area should be effectively managed under an objectively written management plan.

- Illegal Trade in wildlife and wildlife products from within the state and passing through the State should be strictly prevented.
- Appropriate intelligence gathering measures secret service fund and reward scheme should be put in place to combat poaching and illegal wildlife trade.
- Mobility of staff and communication network should also be strengthened to tackle wildlife crime.
- Regular census/estimates of wild population of rare and endangered species should be undertaken to monitor their status in the wild.
- Habitat improvement programme such as Plantations in wildlife sanctuaries should be undertaken only with indigenous species in line with the approved management plans after obtaining concurrence and sanction of the competent Authority.
- A Wildlife Atlas will be prepared to inventorise and categorise the areas of occurrence of rare and endangered species so that effective strategies could be put in place to promote and conserve them.
- Invasive alien species from inside and vicinity of the protected areas should be removed systematically to restore the indigenous flora and fauna. Strategies to achieve this task should be expressly described in management plans.
- Conservation breeding and planned breeding programme should be undertaken by coordinating in-situ and ex-situ conservation efforts of rare and endangered species in the State.
- Help of modern scientific knowledge, biotechnology and molecular biology should be taken in wildlife conservation programmes wherever deemed necessary.
- For creating awareness among people about conservation of wildlife and biodiversity Nature Education Programmes and camps should be organised in Sanctuaries, Parks and other protected areas. Nature Interpretation Centers should be established for this purpose with adequate government funding.
- Publicity and advertisement campaigns should be carried out to bring various wilderness areas rich in biodiversity and natural beauty into focus and promote ecotourism.

- Excessive use of pesticides is causing harm to the wildlife outside forest boundaries. Research on safer pesticides and fertilizers should be carried out and farmers should be encouraged to use them through proper funding and extension work. The Forest Department in tandem with other Govt. agencies should also encourage organic farming and integrated pest management in agricultural areas.
- Research work on various aspects of biodiversity conservation and improvement should be carried out by involving Universities and other Research Institutes

5.5. Diversion of Forest Land for Non-Forest Purposes

- **Provisions of FCA, 1980 should be effectively implemented especially to stop any violation along strip forests**
- Diversion of forestland especially from natural forest areas for any non forest purpose should be considered as a last resort subject to carefully scrutiny.
- Hazardous industrial development should be discouraged near forest areas and only those industries should be allowed which are consistent with the principles of forest conservation.
- Beneficiaries who are allowed mining and quarrying in forest land covered with trees should be required to restore the degraded area with afforestation and to give a proper mine management plan approved from the environmental angle.
- The State has only 6.3% of its area under forests and this too is continuously diverted for infrastructure demands. To compensate the decrease in forestland and to create new forest areas, land banks should be created in the State as reserves on surplus lands of the other State departments. The state should launch a scheme for purchasing land for afforestation to improve the extent of forest and wildlife habitats in the State.

5.6. Damage to Forest from Encroachment, Fires and Grazing

- Strong and effective management interventions should be undertaken to fight the menace of encroachments in forests at all levels.

- Forest areas should be cleared of all encroachments, and regularization of the encroachment should be strongly discouraged.
- Special precautions should be taken during the fire seasons and modern management practices should be adopted to deal with forest fires. Fire fighting training should be imparted to forestry staff and local stake holders.
- Grazing in forest areas should be regulated in the Shiwalik with the involvement of community by appropriately training them. Young plantation and regeneration areas should be fully protected.
- State should formulate a proper land use policy and domestic cattle management strategy.
- Stray and feral population of animals such as cattle and dogs roaming in the forests and protected areas should be controlled and where possible should be translocated to gaushalas and other suitable facilities.

5.7 Conservation and Propagation of Medicinal Plants

- Herbal parks and Herbal Gian Kendras should be set up in each district to educate people about the traditional Indian System of medicine for generating awareness, preserving the gene pool and production of quality seeds and seedlings for distribution to the farmers.
- Farmers should be encouraged for ex-situ cultivation and propagation of medicinal plants for income generation. Enabling environment should be created to facilitate processing and marketing of medicinal plants and their products.
- The Forest Department should take initiative in growing and promoting medicinal plants because most of the medicinal herbs are harnessed from the natural forest areas. Strategy for conservation, cultivation, marketing, evaluation of the medicinal plants should be incorporated in the management and Working plans of the forests.
- State Medicinal Plants Board should be associated with State Forest Department for sincere and dedicated implementation of national policies in this regard.

5.8. Forest Based Industry

- Farmers should be encouraged to grow wood for better economic returns. There should be no restriction and regulation on the felling of tree crops such as Eucalyptus, Poplars and other fast growing species under agro forestry systems on private land holdings to encourage regular supply of raw materials to forest and wood based industries.
- Industry should also be encouraged to raise forest raw material for its own requirement through contract tree farming with private landowners.
- Forest based enterprise at the village or cottage level should be permitted only after availability of raw material is periodically assessed.
- All the wood based industries should be regulated through a proper frame work and illegal saw mills/industries should be closed.

5.9. Forestry Research

- With increased recognition of the role played by the Forests in mitigating environmental problems, biodiversity conservation and energy needs, emphasis must be laid on scientific forestry research by strengthening the research base as well as identifying new priorities for action.
 - Some priority areas of research and development can be identified as:
 - Increasing productivity of wood/forest produce per unit forest area of the State.
 - Development of plantation models for revegetation of barren/marginal/waste land/watersheds.
 - New approaches to social and community forestry for rural development.
 - Biotechnology and Tree improvement to produce quality seedlings for maximizing production from tree crops.
 - Optimum Soil and Water conservation practices to minimize water run-off.
 - Protected Area Network models for wildlife and Biodiversity conservation and Management.

- Research on Medicinal properties of medicinal plants and other forest produce.
- Control and management of invasive alien species in forest areas.
- Impact of climate change on forest productivity and tree crops in the State.
- Collaborative Research involving specialist institutes should be undertaken on priority areas of forestry research.
- Appropriate methodologies and models for holistic economic valuation of the forests and wildlife resources of the State should be developed which take into account both tangible and intangible benefits of the forests.
- The holistic economic valuation should be used to develop a Forest Resource Account which would provide an accurate picture about contribution of forestry sector in the State Economy vis-a-vis other sectors.

5.10. Forest Extension

- A suitable forestry extension strategy should be formulated for the State under which a Forestry Extension Network should be created to adequately meet the extension needs throughout the State.
- Forest Conservation programme cannot succeed without the active cooperation and support of people. They should be involved in development and conservation of forests, wildlife and natural resources. Assistance from institutions such as Krishi Vikas Kendras and Educational Institutions should also be taken in providing forestry extension support.
- There should be separate regulated timber markets in the State by Punjab Mandi Board for ensuring transparency in transaction and avoiding exploitation of tree growers.
- Market intelligence and information gathering mechanism shall be strengthened for the benefit of the tree growers and wood consumers.
- Formation of tree grower's cooperative should be encouraged.
- **Van Chetana Kendras** should be established by the forest department in each district for extension activities. Education on nursery techniques, agroforestry

and marketing of forest produce, medicinal plants and their marketing should be provided by these Van Chetna Kendras.

- **Van Mitra Award scheme** should be instituted for educational institutions to involve and encourage school children in greening of the State.
- Regular awareness campaigns should be undertaken to educate people about the environmental, social and economic benefits of the forests and need to protect and conserve them.
- Ecotourism should be used as a management tool for forest conservation. Sites should be identified in natural forests to develop them as Eco –Tourism spots, for the exposure of people and connecting them to the nature and its bounties without disturbing the ecology of the forest area. Some selected Shiwalik forests and wetlands should be developed for such purpose with the involvement of village forest committees so that the villagers are also benefited economically from such activity. Also, they will get encouragement to protect and develop their forest areas for such purposes. Community based Eco-rural tourism should be promoted on the fringes of the forests.
- Due representation to forest officers at senior level should be given in different line departments particularly State Environment Department and Punjab Pollution Control Board so that forest and environment development issues can be addressed in an integrated manner to curb pollution and protect the environment of the State.

5.11. Application of Information Technology to Forestry

- Information technology should be made an integral part of forest management and planning.
- **Use of GIS-based Forest Management Information System** (FMIS) should be encouraged to strengthen e-Governance in State Forest Department.
- The existing staff should be adequately trained in IT and FMIS, and where required, new staff should be recruited and posted to handle the critical areas of IT-based activities such as GIS, MIS, RDBMS, and Networking etc.

- Use of spatial technologies such as GIS, GPS and Remote Sensing should be promoted among the field staff to draw maximum benefits from their use in forest management, planning, monitoring and evaluation, and decision support.
- The department should aim at achieving 100% computer literacy by training both ministerial and field staff.

5.12. Financial, Legal and Infrastructure Support to the Forest Policy.

- A State Forestry Board on lines of State Board for Wildlife under the Chairmanship of Chief Minister, Punjab should be established to monitor implementation of forest policy periodically and provide guidance to the Department.
- Legal cells should be established to provide legal assistance to forestry staff at Sub-Division, District and State level to take care of pending litigation.
- The forestry sector which maintains the ecology, environment, and renewable natural resources such as forests, wildlife and biodiversity soil and water for the future use should to be provided with adequate financial resources to achieve its mission.
- For effective implementation of this policy, Forest Department should be provided with appropriate infrastructure support in terms of mobility, communication and scientific equipment.

5.13. Personnel Management, Education and Training

- Government policies on personnel management in forestry sector should aim at attracting and retaining qualified and motivated personnel and enhancing their professional skills, competence and status.
- Since the forest and wildlife staff performs multifarious duties and thus have to don many caps which include policing, developmental and scientific to name a few. The policing and protection of forests and wildlife is a prime duty of the foresters. It is imperative that facilities and privileges at par with police

officers/personnel of corresponding rank and pay is provided to the forest officers/personnel.

- The State should also open Forest Stations on the lines of Police Stations.
- Cadre Strength of Forest Officers of various ranks should be maintained at optimum level and reviewed every five years.
- There should be lateral opportunities for forest officers to share experience with other departments to contribute to the development and progress of the State.
- Capacity building of local people especially the members of Village Forest Committee (VFC), Forest Protection Committee (FPC) or Eco Development Committee (EDC) should form an integral part of the Human Resource Development (HRD) Strategy of the State.
- Taking into account the latest developments in forestry and related disciplines, specialized training courses for developing better management skills for in-service officials needs to be encouraged. Government of India is already conducting compulsory Training Courses in various disciplines for IFS officers every year. State Forest Service Officers and all other forest officials of the department should also be given training in latest developments in forestry and modern technologies.
- A State Forestry Training Institute should be developed by equipping it with a well trained faculty and good training facilities for training foresters and wildlife staff as well as staff of other line-departments. A small cadre of non-foresters including Scientists, Ecologists, Geneticists, Sociologist, Economists, Legal experts, Veterinarians and IT professionals should be provided to the Forest Department for addressing the natural resource management issues in a more holistic manner.
- The field staff of the Forest Department should be encouraged to develop specialization in modern technology applications in forestry and also secondary specialization through small training modules in the fields like environmental management, horticulture, agriculture and other allied disciplines.
- An appropriate protocol should be ensured for I.F.S. officers as members of All India Services. They should be given due position and protocol at District,

Division and State Level meetings and functions commensurate with their status vis-à-vis their counter parts from the other All India Services.

- The fleet strength of the Department should be reviewed and upgraded from time to time. In view of emergency nature of duties, vehicles of forests officers at the level of DCF's and above should be provided with red light/flag. The field staff should be provided with patrolling vehicles/motorcycles. Also, mobile communication facility should be provided to each officer/official working in the Department.

6. Epilogue

- It is envisaged that this policy should lead to better forest management programs and practices which ensure environmental stability, promote conservation of biodiversity and bio-cultural heritage, and fulfill basic requirements of forest dependent and rural poor, and other stakeholders while maximizing environmental, social and economic benefits for the State.

GOVERNMENT OF PUNJAB
DEPARTMENT OF LOCAL GOVERNMENT
(Town Planning Wing)
[Punjab Municipal Bhawan, Sector 35-A, Chandigarh]

Notification

The 19 December, 2016

No. DTP(LG)-2016/ 2895 :- The Governor of Punjab is pleased to notify "**The Punjab Municipal Green Buildings Incentives Policy- 2016**", as given in the schedule.

1. Whereas, sustainability in buildings is a vital component of the sustainable urban development. The Government of India has taken various initiatives to bring sustainability in buildings, one of those initiatives being promotion of Green Buildings.
2. Whereas, 'Green Building' means a building/structure created by using processes that are environmentally responsible and resources-efficient throughout the building's life-cycle i.e. design, construction, operation, maintenance, renovation and demolition.
3. Whereas, the Government of Punjab has notified Punjab Energy Conservation Building Code (ECBC) under section 18 of The Energy Conservation Act, 2001 vide Notification No. 18/4/16/ ਓਸ1/1856 dated 24.6.16 whereby, compliance of Punjab ECBC is mandatory. Clause no. 2 of Punjab ECBC gives following directives for the requirements for design or retrofit of buildings / building complexes.

3.1 Applicability of Punjab ECBC to the category of Buildings:

Punjab ECBC is applicable to Building complexes such as offices, hotels, shopping complexes, group housing complexes, hospitals and other that are not primarily for industrial i.e. manufacturing use and;

- i. have connected load of 100 kW or greater;
- ii. or have contract demand of 120 kVA or greater;
- iii. or having conditioned area of 500 m² or more.

3.2 Applicability of Punjab ECBC to the building systems/components:

As per Clause 2.1 of Punjab ECBC, the code is applicable to the following building system :-

- a) Building envelopes, except for unconditioned storage spaces or warehouses;
- b) Mechanical systems and equipment, including heating ventilating and air conditioning;
- c) Service hot water heating;
- d) Interior and exterior lighting; and
- e) Electrical power and motors.

4 Green Building Rating Systems

Whereas at present, in India, Green Building Ratings are given by Green Rating for Integrated Habitat Assessment (GRIHA), Leadership in Energy and Environmental Design (LEED) and Indian Green Building Council (IGBC) etc. following a point based system. GRIHA follows 34 points based star rating starting from 1 star upto 5 star. IGBC and LEED follows 54 points based rating system i.e. Silver, Gold and Platinum.

- 5 Therefore, in view of above, Punjab ECBC and other Green Building Rating System, the policy of the Department of Local Government Punjab for giving incentives to Green Buildings in the Municipal Areas of Punjab is as under:-

5.1 Incentives under Punjab Energy Conservation Building Code (ECBC)

In case of buildings compliant with the Punjab Energy Conservation Building Code, the incentives granted are as under:

15% rebate in property tax shall be granted to the building till the time building is Punjab ECBC compliant. This incentive shall be applicable to the buildings defined under clause 2.0 of Punjab ECBC and para 3.1 above.

5.2 Incentive under other rating systems:

An incentive of additional 5% FAR shall be granted free of cost to the buildings on submission of "Green Building" certificate from following agencies with rating as below:

- (i) Buildings granted 4 or 5 star rating by GRIHA or;
- (ii) Buildings granted Gold / Platinum rating by LEED or;
- (iii) Buildings granted Gold / Platinum rating by IGBC

This incentive shall be applicable to the Residential and non-residential buildings on plot sizes above 100 sqm.(120sq.yds)

6 Terms and conditions for above mentioned incentives under Punjab ECBC/other rating systems:

The incentives shall be subject to following terms and conditions:

- (i) Grant of incentive of additional FAR (Floor Area Ratio) shall be provisional till final completion certificate is obtained by the applicant within the prescribed period.
- (ii) Grant of incentive of additional FAR shall not be in contravention of any byelaws/rules.
- (iii) Grant of incentive of property tax /additional FAR shall be reviewed every 3 years. In case of non compliance of the above conditions or upon failure to obtain/retain the minimum rating prescribed above, a penalty equivalent to 5 times the collector rate of land proportional to the 5% additional FAR shall be imposed for the buildings availing additional

- (iv) In case of buildings obtaining more than one green building certifications from ECBC/other rating systems, then only one of the incentives at a time shall be applicable.

Dated: 15 December, 2016.
Place: Chandigarh.

D.P.Reddy, IAS
Additional Chief Secretary to Government, Punjab,
Department of Local Government

Endst. No. DTP(LG)-2016/ 2896, dated Chandigarh, 19 December, 2016.

A copy is forwarded to the Controller, Printing & Stationery, Punjab, Sahibzada Ajit Singh Nagar, with the request to publish this notification in the extra ordinary gazette of the State Government, and supply 25 spare copies immediately.

28/12
Special Secretary Local Government

Endst. No. DTP(LG)-2016/ 2897-2905, dated Chandigarh, 19 December, 2016

A copy each is forwarded to the following for information and necessary action:-

- (1) Principal Secretary, Housing and Urban Development, Punjab, Chandigarh.
- (2) Director, Local Government, Punjab, Chandigarh.
- (3) All Mayors of Municipal Corporations, in the State of Punjab
- (4) All Commissioners of Municipal Corporations, in the State of Punjab.
- (5) All Regional Deputy Directors, Local Government, in the State of Punjab.
- (6) All officers of the Department of Local Government Secretariat/Directorate.
- (7) All Superintendents and officials of Branches of Department of Local Government Secretariat and Directorate.
- (8) All Executive Officers, Urban Local Government, in the State of Punjab
- (9) Director, Information and Public Relations Punjab, Chandigarh.

28/12
Special Secretary Local Government

GOVERNMENT OF PUNJAB
DEPARTMENT OF LOCAL GOVERNMENT
(Town Planning Wing)

NOTIFICATION

Dated:

15, December, 2016

No. . Dir.TP – 2016 / 2850 Government of India has launched AMRUT Scheme (Atal Mission for Rejuvenation and Urban Transformation Scheme) on 26.06.2015 to promote urban forestry and increase in green cover in urban areas and has recommended reform under the AMRUT Scheme for making an action plan to increase green cover in 16 AMRUT cities to 15%. The Governor of Punjab is pleased to notify the Action Plan for increase in green cover in AMRUT cities in the state of Punjab as under:

1. Introduction

As per the reform no. 4.4, of AMRUT Scheme, an action plan has to be prepared to increase green cover to 15% in following 16 AMRUT Towns/Urban Local Bodies (ULBs):-

Ludhiana, Amritsar, Jalandhar, Patiala, Bathinda, Hoshiarpur, Batala, Moga, Pathankot, SAS Nagar, Abohar, Malerkotla, Khanna, Muktsar, Barnala and Ferozepur.

2. Significance of Urban Greening:

2.1 Physical Benefits –

- (i) Urban forests act as temperature buffers providing shade in the summer, and wind breaks in the winter in addition to reducing noise pollution and CO2 levels, and providing a habitat for wildlife.
- (ii) Urban greening offers improvements in air, water, and land resources by absorbing air pollutants, increasing water catchment in floodplain surfaces, and stabilizing soils. Social Benefits.
- (iii) Green spaces provide a refreshing contrast to the harsh shape, colour, and texture of buildings, and stimulate the senses with their simple colour, sound and smell.
- (iv) Particular types of green space may offer a bigger diversity of land uses and opportunities for a wide range of activities, help to foster active lifestyles, and can be of real benefit to health.
- (v) Well-managed and maintained green spaces contribute to social interaction by creating opportunities for people of all ages to interact.
- (vi) Urban green spaces emphasize the diversity of urban areas by reflecting the different communities they serve and meeting their varying needs.
- (vii) They enhance cultural life by providing venues for local festivals, civic celebrations and theatrical performances.

- (viii) Urban green spaces provide safe play space for children, contribute to children's physical, mental and social development and play an important role in the basic education of schoolchildren with regard to the environment and nature.

2.2 Planning Perspective

From the planning perspective, a hierarchy and network of quality green spaces integrating residential areas with commercial and other uses improve the accessibility and attractiveness of local facilities and employment centers.

- (i) Well-designed networks of green spaces help encourage people to travel safely by foot or by bicycle for recreation.
- (ii) Furthermore, well-designed urban green spaces provide a barrier to noise and can effectively function as visual barriers.

2.3 Economic Benefits

- (i) Property owners value urban greenery by the premium they pay to live in the neighborhood of urban green spaces and public parks. Plots and flats abutting park add to value. In densely populated areas this effect is even more pronounced. For example, view of green spaces and proximity to water bodies increases the real estate prices.
- (ii) Impact of neighborhood parks on the transaction price of multi-storied residential units in cities illustrate the fact that neighborhood parks could increase price.
- (iii) Urban shady trees offer significant benefits in reducing building air-conditioning load and improving urban air quality by reducing smog.

2.4 The action plan for increase in green cover in AMRUT cities to 15% shall dwell upon all the levels starting from city level upto ward level. Following types of green areas are generally available in the cities:

3. Types of Green Areas:

- (i) Reserved/National Forests/ Protected Forests:
These green areas/Parks fall in the category of Forests notified/ declared under various Forest Acts.
- (ii) National Parks/ District Parks
These Parks fall in the category of green parks/centuries notified/ declared under various Forest Acts which are shown in Master plans of Regions/towns.
- (iii) Neighborhood Park:
Neighborhood Park is developed at the neighborhood level for a population of 10,000. The Park is conveniently located within the developed residential areas at walking distance and is planned generally on an area of 2,000-4,000 sqm.
- (iv) Totlots:
Totlots are the lowest level in the hierarchy of green areas, planned for a population of 2,500 as play-areas for children with an area of 125 sqm.
- (v) Playgrounds:

Playgrounds are provided normally in the educational institutions for the use of the school and college students. They are also provided at the neighborhood level for a population of 5,000.

(vi) **Green Belt (Buffer):**

Green Belts Include green girdle, park belt, rural belt, rural zone, agriculture belt, country belt, agriculture green belt. Agriculture belt, rural and country belt are synonymous terms and they refer to a stretch of the country side around and between towns separating one from the other. These areas are predominantly farm lands and they support agriculture and related functions. They may or may not be in ownership of the town/city/local body.

(vii) **Green Strip:**

A green strip is developed on a vacant land for example land under high tension power supply lines. It is also developed along the arterial roads separating residential areas from other uses.

(viii) **Tree Cover:**

Trees planted along the roads within the right-of-way and on the central verge (median).

4. Norms for Reservation of Green Areas:

- (i) The WHO (World Health Organization) recommends atleast 9 sqm. of undeveloped unpaved open space for every inhabitant.
- (ii) The Delhi Unified Municipal Building Byelaws, 2016 provides for 1 tree for every 100 Sqm. of open space in a plot (other than residential plotted development).
- (iii) Notified Master Plan of various towns in the state of Punjab has also prescribed norms for green covers. The Department of Local Government Punjab has also prescribed following minimum norms of green areas in the Punjab Model Municipal Building Byelaws:-

"In case of Group Housing Projects 15% of the total site area that has to be left as organized green/open space and 10% in case of the Multiplex projects."

5. Advisory by Government of India (GOI) for planting trees:

(i) **Type of trees for Road side plantation:**

Trees like Neem, Mahua, Sheesham, Mango, Imli, Safed Siris etc. should be planted along roads. No hard and fast rule may be laid down for the spacing of avenue trees; it depends on the type of trees.

(ii) **Minimum spacing between trees:**

A minimum spacing of 10-12 m should be followed. The trees in the formal avenue planting should be planted in rows on either side of the road in a staggered manner. At urban intersections the trees should be at least 3 mts. away from the intersections for right viewing distance.

6. Action Plan

The action plan for increase in green cover in AMRUT cities hereinafter referred to as ULBs to 15% is as under:

All the AMRUT towns shall identify/ enumerate the **Existing Available Green Cover** as provided in the Existing Land use Plans of AMRUT Cities as follows:

STEP-1: IDENTIFICATION OF EXISTING GREEN COVER

Details of existing Green cover/ area					
S.No.	Location of Green pockets	Area in sqyds	Ownership	Type (forest, park, playground, green strip, tree cover along roads)others(specify)	Total %age of existing green area with respect to Municipal Area
1					
2					
3					
4					

Total Existing Green Cover =in Acres (.....%)

STEP-2: REQUIREMENT OF PROPOSED GREEN COVER

Total Existing Green Cover = say x%, ultimate required green cover 15%, therefore,

Requirement of green cover = $15\% - x\% = \dots\dots\%$

STEP-3: IDENTIFICATION OF PROPOSED GREEN COVER

Details of existing vacant land that can be put to use to increase green cover					
S.No.	Location of Site	Area in sqyds	Ownership/ existing use (vacant/ encroachment/ parking/ other(specify)		
1					
2					
3					
Schedule to increase green cover upto 15% in the next 5 years					
Prioritize projects on the basis of availability of land/ ownership/Funds etc.					
Timeline	%age of Existing and proposed green cover	Location of sites	Area	Department/ Agency to plant tree	Allocation of funds for increase in green cover
2015-16	Minimum. 3%	1. 2. 3.			
2016-17	Min. 6%	1. 2.			

		3.			
2017-18	Min. 9%	1.			
		2.			
		3.			
2018-19	Min. 12%	1.			
		2.			
		3.			
2019-20	Min. 15%	1.			
		2.			
		3.			

Implementation of the above steps shall require following actions to be undertaken:

- (i) **Action-1:** The concerned Deputy Commissioner shall conduct regular monthly meetings of the concerned Departments for the implementation of the Greening Action Plan and shall appoint a nodal officer for the greening projects of the respective towns.
- (ii) **Action-2:** The concerned ULBs shall appoint a nodal officer for the greening projects over the MC lands.
- (iii) **Action-3:** Respective Departments./ULBs shall identify/ enumerate the Existing Available Green Cover and the Proposed Green Cover as provided in the Existing Land use Plans and Master Plans of AMRUT Cities.
- (iv) **Action-4:** The ULBs shall resolve to change the use of Municipal lands proposed for greening from existing into Green Cover/Park/green belt etc. as the case may be.
- (v) **Action-5:** The other Depts. shall give consent to change the use of lands proposed for greening from existing into Green Cover/Park/green belt etc. as the case may be and shall handover the land to the ULB/ Forest Deptt./Horticulture Deptt. or implementing agency for plantation as per Action Plan.
- (vi) **Action-6:** The Respective Depts./ULBs shall make detailed project report for the greening projects wherever required.
- (vii) **Action-7:** The Respective Depts./ULBs shall allocate funds for the lands proposed for greening.

6.1 Post Identification City Level Plan

All the AMRUT towns after above identification of the existing available as well as proposed green cover shall implement the proposed Plans/projects as per following guidelines:

S.No.	City Level Action Plan	Department	Timelines
6.1.1	The Department of Housing and Urban Development shall ensure increase in percentage of green areas to 15% in the proposed/revised master plans prepared through Remote Sensing/Geographic Information system.	Department of Housing and Urban Development	5 years
6.1.2	Since availability of Urban Land is less, respective Depts./ULBs shall promote green buildings and Terrace Gardens by giving incentive of 5% additional FAR as per policy of the Government.	Department of Housing and Urban Development/ Local Government	3 months
6.1.4	In the building rules/byelaws provision shall be made for compulsory plantation of trees within site and compulsory parking of vehicles within the buildings/ houses to discourage parking in open areas etc.	respective Depts./Department of Local Government	3 months
6.1.5	The respective Depts./Department of Forest and Wildlife shall develop identified vacant government lands declared as Green Cover into green belts.	respective Depts./Forest Department and ULBs	12 months

6.2 Local Level Action Plan

S.No.	Local Level Action Plan	Departments	Timelines
6.2.1	The AMRUT cities after preparing an inventory of the existing green open spaces/parks and the trees shall preserve them by various means like boundary wall/ fencing, tree guards, etc.	Respective Depts./ULBs and Forest Department	12 months
6.2.2	The AMRUT cities after preparing an inventory of the existing green open spaces/parks and the trees shall put it on the websites of the concerned Depts.	Respective Depts./ULBs and Forest Department	12 months
6.2.3	The AMRUT cities shall develop identified vacant government lands into green belts through a-forestation techniques with the help of Forest Department.	Respective Depts./ULBs and Forest Department	12 months
6.2.4	In an effort to save urban tree cover, the respective Depts./ULBs shall build a facility within 12 months of the notification of this action plan to transplant trees which are proposed for uprooting due to road widening/ other projects or otherwise. For the cases where it is unavoidable to transplant trees, the concerned Depts. shall ensure to plant required no. of saplings and to ensure nurturing of the same.	respective Depts./ULBs	12 months
6.2.5	Online complaint and help system shall be developed to save the trees and green areas. Strict action shall be taken against the violators.	respective Depts./ULBs	6 months
6.2.6	The respective Depts./ULBs shall invite public private partnership through Resident Welfare Associations	respective Depts./ULBs	6 months

	(RWAs) and other Non-Government Organization (NGOs) for maintaining parks and shall give an aid per sq ft rate for maintaining the park or any other incentive etc.		
6.2.7	An annual best green 'ward' level competition should be organized to encourage and facilitate the citizens involved in the greening movement.	ULBs	12 months
6.2.9	Respective Depts./ULBs shall not encourage concretization of the parks except formation of a small peripheral track of width not more than 5'0" or so, a rain shelter and a gardener room.	respective Depts./ULBs	
6.2.10	Respective Depts./ULBs shall plant trees in all the open parking lots, walkways, footpaths, pavements, other paved areas to provide shade to the pedestrians/ bi-cyclists etc.	respective Depts./ULBs	12 months
6.2.11	In place of interlocking tiles, respective Depts./ULBs shall apply green pavers and perforated tiles to increase the green cover.	respective Depts./ULBs	24 months
6.2.12	Vehicular parking in the parks and open spaces not designated for parking shall be discouraged to save green cover from conversion into non-green uses.	ULBs	2 months

Place:- Chandigarh

Date :- 6/11/16

Satish Chandra, IAS
Additional Chief Secretary to Government, of Punjab
Department of Local Government, Punjab

Endst.No. Dir.TP - 2851 Dated 15-12-2016

Chandigarh

A copy along with a spare attested copy is forwarded to the Controller, Printing & Stationary Department, Punjab, SAS Nagar with a request that this notification may be published in the Punjab Gazette (extra ordinary) and 25 copies may be sent to the Government for record.

Special Secretary Local Government

Endst. No. Dir. 2852-2853 Dated 15-12-2016

Chandigarh

A copy of the above is forwarded to the following for information and further necessary action:-

1. Principal Secretary, Department of Housing and Urban Development, Punjab, Chandigarh.
2. Principal Secretary, Department of Forest and Wildlife, Punjab, Chandigarh.
3. Chief Town Planner, Punjab, PUDA Bhawan, SAS Nagar.
4. Chief Conservator of Forests, Punjab, Chandigarh.

5. Deputy Commissioner, Amritsar, Jalandhar, Ludhiana, Bathinda, Patiala, SAS Nagar, Moga, Pathankot, Phagwara and Hoshiarpur.
6. Commissioner, Municipal Corporation, Amritsar, Jalandhar, Ludhiana, Bathinda, Patiala, SAS Nagar, Moga, Pathankot, Phagwara and Hoshiarpur.
7. Regional Deputy Director, Urban Local Bodies, Amritsar, Ludhiana, Jalandhar, Bathinda, Patiala and Ferozepur.
8. Executive Officer, Municipal Councils, Abohar, Batala, Malerkotla, Khanna, Mukatsar and Barnala.


Special Secretary Local Government