

## COMPREHENSIVE ACTION PLAN FOR AIR POLLUTION CONTROL IN DELHI & NCR

### 1. Source-wise clean air action plan and compliance strategy for Delhi and NCR to meet clean air standards

#### 2.1 Air quality monitoring

S. No.	Action points	Agency responsible	Timeline of EPCA for implementation	Decision during the Meetings in MoEF&CC
2.1.1	<p><b>DPCC to set up 20 more real time monitoring stations:</b> The grid plan should be representative of population distribution and land use including residential, commercial, industrial, roadside and sensitive areas. Delhi currently has 28 real time air quality monitoring stations that are operated by Central Pollution Control Board (CPCB), Delhi Pollution Control Committee (DPCC), and Ministry of Earth Sciences (MOES) with continuous relay of information. These include 10 manual stations and 18 real time stations.</p>	Department of Environment (DOE), Delhi Pollution Control Committee (DPCC)	Done	Agreed
2.1.2	<p><b>NCR-wide air quality monitoring expansion:</b> The SC order of 2.12.2016 has directed CPCB to expand monitoring in the NCR. Accordingly, CPCB has submitted a plan</p>	<p>Central Pollution Control Board (CPCB)</p> <p>State pollution</p>	<p>Rajasthan: Done</p> <p>Uttar Pradesh: December 2017</p> <p>Haryana: January 2018</p>	<p>Rajasthan: N.A</p> <p>UP: February 2018</p> <p>Haryana: January 2018</p>

	<p>to the Hon'ble Court. This includes –</p> <ol style="list-style-type: none"> <li>1. Uttar Pradesh has 10 manual and 1 real time monitoring stations with one each in Ghaziabad and Noida. Real time stations will be set up by March 2017. The UP State Pollution Control Board will set up 6 manual and 8 real time stations.</li> <li>2. Haryana has 4 real time stations and will set up 13 more real time and 22 manual stations.</li> <li>3. Rajasthan has 9 manual stations; 2 real time stations are under installation, which will be completed by March 2017. The Hon'ble SC, vide its order dated 06.02.2017, has directed utilization of Rs2.5 crore from the fund created from Environment Protection Charge on big diesel cars for installing monitoring stations and a Central Control Room for operational control and reporting in Delhi NCR. This is as per the plan submitted by CPCB.</li> </ol>	control boards in NCR		
<b>2.1.3</b>	<b>Enforce Graded Response Action Plan</b> as directed by	EPCA, Task Force under	Ongoing. Has been enforced	Agreed

	the Hon'ble Supreme Court and notified by the Ministry of Environment, Forests and Climate Change	CPCB	during 2017 and helped to bring down severe levels of pollution	
<b>2.1.4</b>	Undertake satellite- based monitoring for tracking and enforcing agriculture waste burning	State governments , CPCB	Ongoing during crop burning season each year	Agreed
<b>2.1.5</b>	<b>Research studies including air pollution inventory, source apportionment, health impact studies, exposure impacts and other relevant studies:</b> Govt. to support research works / scientific studies by academic / research institutions. Expertise will be sought from various institutions to develop protocols for assessment of the research proposals	Environment departments and state boards in NCR	Ongoing (CPCB to give progress every 3 months)	Agreed

## 2.2 Action to reduce vehicular emissions

S. No.	Action points	Agency responsible	Revised timeline for implementation	Decision during the Meetings in MoEF&CC
<b>EMISSION AND FUEL QUALITY FOR NEW VEHICLES</b>				
<b>2.2.1</b>	Ensure on-schedule implementation of BS VI fuel and emission	State transport departments, Ministry of Road Transport and Highways		Decision pending with Hon'ble court.

	<p>standards, including early delivery of BS VI fuel for vehicles to modify technologies. Ensure registration of only BS IV vehicles from April 1, 2017 and only BS VI-compliant vehicles from April 2020</p> <p>Supreme Court order of March 29, 2017 has directed that no vehicle that is not BSIV compliant can be registered from April 1, 2017. Any BSIII vehicle that comes for registration will have to provide the proof of sale before March 31, 2017</p>	(MORTH) and Ministry of Petroleum and Natural Gas (MOPNG)		
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<b>2.2.2</b>	<p><b>Action on dieselization:</b> The SC order dated 12.8.2016 has imposed an environment pollution charge of 1% on registration of diesel vehicles with 2,000 cc and above. A fund has been created from this revenue to</p>	CPCB		Decision pending with Hon'ble court.
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	<p>fund pollution control efforts. Tax measures are needed to nullify incentives for diesel cars over petrol cars.</p>			
<b>2.2.3</b>	<p><b>Expand CNG programme across NCR:</b> The SC orders dated 16.12.2015, 5.1.2016 and 10.5.2016 have directed CNG stations to be set up across NCR and taxis to convert to CNG. NCR to expand CNG bus and auto fleets (see agenda on public transport).</p>	MOPNG, GAIL / IGL	<p>Between December 2015 to current, the number of CNG stations has increased. Another 92 stations have been added across NCR.</p> <p>MoPNG to provide a plan for further expansion and for use in buses and public transport, including removal of fiscal distortions that are barriers to fast adoption of this fuel as against diesel.</p>	MOPNG to provide plan for further expansion of CNG across NCR by end of January 2018.

<p><b>2.2.4</b></p>	<p><b>Introduce battery-operated vehicles in targeted segments of two-wheelers, three-wheelers and buses.</b> Plan infrastructure for charging and battery disposal.</p> <p><b>Identify and notify commercial areas in cities with high footfalls and good public transport and goods transport connectivity that can be pedestrianized, supported by zero emission battery-operated vehicles:</b> Priority may be accorded to battery-operated para-transit as feeders and for last mile connectivity in such areas. Ensure organized deployment to reduce congestion.</p>	<p>DOE &amp; DPCC,SPCBs, Transport Dept, municipal bodies, Discoms</p>	<p>MoRTH to submit plan within 3 months with deliverables, focus on speedy implementation to target 3 wheelers and buses and feeder services like taxis, metro-feeder and to provide NCR-wide charging infrastructure.</p> <p><b>Plan by February 28, 2018</b></p>	<p>The issue of e- mobility is under discussion in NITI Aayog and group of Secretaries. This may take some more time. MoRTH has issued enabling regulations already. State government of Delhi and those of NCR states should prepare the plan within one (1) month for speedy implementation, as per MoRTH regulations.</p>
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2.2.5	<p><b>Install vapour recovery systems in fuel refueling outlets to reduce benzene emissions in NCR. CPCB has issued direction for installation of stage I and Stage II vapor recovery system in all retail outlets with capacity 3000 klm and more in 46 million plus cities by December 2017. In Delhi and NCR all retail outlets should comply with this.</b></p>	MOPNG, Transport Dept., state boards, DOE	<b>May 2018</b> (6 months from approval of plan)	Agreed
<b>ON-ROAD VEHICLES</b>				
2.2.6	<p><b>Auditing of Pollution under Control (PUC) certification centres</b> The SC orders dated 25.11.2016, 2.12.2016, 17.1.2017 and 06.02.2017 have directed the government and EPCA to audit stations in Delhi- NCR and suggest improvements.</p>	State departments of transport in Delhi and NCR	<p>In its order of August 10, 2017 Hon'ble Court has already given directions to MoRTH on this.</p> <p>MoRTH to provide compliance report to Hon'ble Court on implementation of its directions by December 10, 2018.</p>	<p>MORTH has already issued directions to states.</p> <p>Compliance from State Governments expected by 31<sup>st</sup> January 2018</p>
2.2.7	<b>Tighten PUC norms for post-2000 vehicles.</b>	Ministry of Road Transport and Highways	Hon'ble Court has in the October 11, 2017	Noted

	<b>Upgrade in-use emissions testing for diesel vehicles.</b>		order directed ARAI (Automotive Research Association of India) to give report on this matter within 8 weeks to EPCA.	
<b>2.2.8</b>	<b>Implement an on-board diagnostic system fitted in new vehicles for vehicle inspection. Improve facilities for its implementation</b>	Ministry of Road Transport and Highways Department of Transport, NCR	The Union has to revert back on the proposal for hand-held scanners to verify the functioning of OBD system and the plan proposed by the Hon'ble Court (vide its order dated October 11) to phase in the introduction, starting Grade A cities. MORTH	Affidavit already filed by MoRTH in SC. Further direction of SC are awaited.
<b>2.2.9</b>	<b>Link PUC certificates with annual vehicle insurance to ensure 100 per cent compliance.</b>	MORTH, Transport Department, IRDA (Insurance Regulatory and Development Authority)	Done. In its order of August 10, 2017 Hon'ble Court has already given directions to MoRTH on this.  MoRTH to provide compliance report to Hon'ble Court on implementation of its directions by December 10, 2018. MORTH	MORTH has already written to LIC and IRDA. MORTH to provide compliance by 28 <sup>th</sup> February 2018.

2.2.10	<b>Enforcement of law against visibly polluting vehicles: impose penalty, launch extensive awareness drive against polluting vehicles.</b>	Department of Transport, GNCTD, Rajasthan, UP, Haryana	Ongoing	Agreed
2.2.11	<b>Delhi to review and upgrade the Burari commercial vehicle testing centre.</b>	Transport Department, Delhi	February 28, 2018	Commercial Vehicle Testing Centres coming up immediately in Jhuljhuli. 4 such other centres coming up in 6 months. Burari is still pending approval.
2.2.12	<b>Ensure requisite infrastructure for hydro testing of CNG cylinders in Delhi and NCR.</b>	State transport departments, Ministry of Petroleum and Natural Gas	February 28, 2018	This is a safety issue and is having monitored as part of Delhi Govt. Action Plan

TRANSIT TRUCK TRAFFIC				
2.2.13	<p><b>Divert truck traffic:</b> SC orders dated 9.10.2015, 16.12.2015 and 5.1.2016 directing diversion of non-destined trucks and imposition of ECC on incoming trucks.</p> <p><b>SC order for installation of RFID system in Delhi:</b> As per the orders dated 9.10.2015, 5.1.2016 and 22.8.2016, the SDMC is tendering for RFID for 13 entry points, which account for 80% of commercial traffic into Delhi. The system will be commissioned before next winter.</p>	Delhi Transport Department and Municipal Corporation of Delhi	Ongoing	<p>Agreed.</p> <p>Turn around facility will be provided on priority basis in Badarpur, Kundli, Tikri, Gurgaon, NH24. NHA and PWD will give timelines for the same.</p>
2.2.14	<p><b>Check overloading:</b> The SC order dated 5.1.2016 directing for weigh-in-motion bridges / machines (WIM) at entry points to Delhi. NHA has commissioned 60 WIM at 6 toll plazas for entry into Delhi. However, implementation of its penalty, which is 10 times of applicable rate for over-loaded vehicles, is lagging.</p>	NHA to commission WIMS and enforce at all entry points	February 28, 2018	Agreed

<p><b>2.2.15</b></p>	<p><b>Fast track construction of Western and Eastern Peripheral Expressways:</b> Take steps to expedite early completion of the Expressways and submit a completion schedule. SC orders dated 11.2.2005, 11.3.2005, 1.8.2005 and 31.3.2016 on building / upgrading alternative bypass roads. The EPE is on schedule for completion in July 2018 and one stretch of WPE has been commissioned. The EPCA has given a report on existing alternative routes that need upgradation. This is also being pursued with MoRTH and NHAI.</p>	<p>NHAI schedule for EPE is mid-2018</p> <p>Haryana government schedule for WPE is mid- 2019</p>	<p>NHAI and Haryana government to come back to Hon'ble Court on expediting schedules in next hearing on December 6, 2017.</p>	<p>Both express ways would be open to public by April, 2018</p>
<p><b>2.2.16</b></p>	<p><b>Inter-state freight transport plan:</b> Submit plan for inter- and intra-state transport sector for short term, mid-term and long term action points to improve rail-based freight traffic to reduce dependence on trucks.</p>	<p>Transport Department to coordinate with NCRPB and Railway Ministry</p>	<p>Submission of plan by February 28, 2018</p>	<p>MOUD to coordinate with State Government and railways and submit plan with one (1) month.</p>

<b>2.2.17</b>	<b>Fuel quality:</b> Prepare an action plan to check fuel adulteration and random monitoring of fuel quality data. The MoPNG has set up a fuel testing laboratory, based on previous SC directions. To review its operations and to ensure that fuel testing is done across NCR for all combustion fuels.	MOPNG	February 28, 2018	Agreed
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### 2.3 Strategies to reduce vehicle numbers onroads

S. No.	Action points	Agency responsible	Revised timeline for implementation	Decision during the Meetings in MoEF&CC
<b>PUBLIC TRANSPORT STRATEGIES</b>				
2.3.1	<p><b>Improvement in bus numbers and services.</b> SC orders dated 27.7.1998 and 5.1.2016 directing Delhi government to abide by SC direction to augment to 10,000 buses by 2000 and the Union to provide land for bus depots.</p>	Delhi Transport Department, DTC, DIMTS, DDA	Delhi government must ensure total compliance with order of 1998 and 2016 by December 2018. This requires a total fleet of at least 10,000 buses	Agreed
2.3.2	<p>Implement the recommendations of Route Rationalization Report of GNCTD. Improve availability by rationalizing routes and fleet enhancement with requisite modification</p>	Delhi Transport Department, DTC and DIMTS	Immediate	June , 2018
2.3.3	<p>Reform of DTC and Cluster Bus Operations – modernize fleet and crew scheduling process of DTC, install GPS units on DTC buses and create a traffic control cell for monitoring bus movement, rationalize scheduling of buses under DTC and cluster scheme.</p>	Delhi Transport Department, DTC and DIMTS	Immediate	4000 buses to install GPS in 3 months. Remaining fleet by December 2018.

<b>2.3.4</b>	IT system in buses, bus-stops and control centre and passenger information systems for reliability of bus services, and service monitoring.	Delhi Transport Department, DTC and DIMTS	Immediate	Initial activities by March, 2018. Completion by December 2018.
<b>2.3.5</b>	Bus parking should be made integral to urban planning. Multi-level bus parking to be provided in depots to more efficiently use available land area. Multi-modal, multi-use bus depots to be developed to provide high-class bus services and terminal experience to passengers. Should include well equipped maintenance workshops.	Delhi Transport Department, DTC and DIMTS	Immediate. EPCA report on availability of bus depot land shows that land is available for additional 2000 buses and that Delhi government must use options for multi-level parking in rest. DDA has made the requisite changes in Master Plan to allow for multi-level parking	Millennium Depot issue pending in the court. Timelines can be finalised after court decision.
<b>2.3.6</b>	Need bus fare policy to ensure that it is affordable and remains competitive vis-a-vis the operational cost of two-wheelers.	Delhi Transport Department, DTC and DIMTS	Immediate	Agreed
<b>2.3.7</b>	Enforce bus lanes and keep them free from obstruction and encroachment.	Delhi Transport Department, DTC, DIMTS	Immediate	Agreed. To be enforced by Delhi Police and compliance given

2.3.8	<p><b>Augmenting the service of Metro for carrying more passengers:</b> SC order dated 5.1.2016 directing for augmentation of service / coaches.</p> <p>Metro has submitted to EPCA its plan for inducting 486 additional coaches by December 2017 for existing lines. Of this, 270 have been procured. In addition, Metro has submitted proposal for 602 coaches, which is being examined by the Delhi govt.</p>	DMRC	December 2018	Proposal pending with Delhi Govt. Timeline is agreeable.
2.3.9	<p><b>Three-wheelers</b> Implement electro-mobility for three-wheelers to make them zero emission as efficient feeder system for last mile connectivity and integration with bigger public transport systems. Organise their services for efficient deployment.</p>	State transport departments	May 2018	State govt. of Delhi and those of NCR states to submit the plan within one (1) month for speedy implementation.
2.3.10	<p>BRTS / LRTS to be implemented in targeted high frequency routes and complemented with bus services with proper integration of routes, stations and terminals. Explore feasibility of BRT / LRTS connectivity between Delhi and other NCR cities</p>	Delhi Transport Department, DTC and DIMTS	Transport departments of Delhi, Haryana, UP and Rajasthan to provide action plan with schedules of key BRTS/LRTS corridors by February 28, 2018	Transport departments of Delhi and Haryana to submit Action Plan by 28 <sup>th</sup> February 2018.
2.3.11	<p>Fare integration and common ticketing; bring ETVMs into all DTC buses. Common mobility cards to be the mandatory access card for buses.</p>	Delhi Transport Department, DTC and DIMTS	Immediate	Agreed

<b>2.3.12</b>	Implementation of multi-modal integration plan for bus-Metro IPT-NMT at key / all interchange points.	Delhi Transport Department, DTC and DIMTS	Immediate DIMTS(Delhi integrated multi model system) Delhi Govt.	Delhi Transport Department to submit a plan in 3 months
<b>2.3.13</b>	Demarcation and development of Influence Zones around Metro stations as per MPD-2021 to improve access to the public transport system.	Transport Department, PWD, DDA /UTTIPEC, DMRC, DTC, DIMTS	Immediate	Delhi Transport Department to submit a plan in 3 months
<b>2.3.14</b>	Proper regulations and organization including providing driver-training, certification, etc. for cab and auto-rickshaw drivers	DDA, MCD, PWD	Immediate	Delhi Transport Department to submit a plan in 3 months
<b>2.3.15</b>	<b>NCR connectivity for public transport – need bus and Metro plans.</b> Rationalize routes and augment public transport in NCR on CNG mode.	Ministry of Urban Development , NCR Planning Board, state governments	MoUD to submit a comprehensive plan by February 28, 2018 with clear deliverables	MOUD to submit the plan within one (1) month.
<b>2.3.16</b>	<b>Rationalize entry taxes in NCR under the NCR reciprocal agreement to lower costs of travel by public transport.</b>	Ministry of Urban Development , NCR Planning Board, state governments	Immediate	Matter to be taken up for discussion by Secretary (EF & CC) with Secretary MOUD
<b>2.3.17</b>	Integrate ITS in bus systems in cities in NCR (automated vehicle location, passenger information system, fare collection system).	Ministry of Urban Development, NCR Planning Board, state governments	Immediate	Agreed

<b>2.3.18</b>	Regional Rapid Transit System (RRTS) integrated with local transit systems should be implemented to provide seamless connectivity between regional and sub-regional centres of NCR.	Ministry of Railways and state governments	National Capital Region Transport Corporation (NCRTC) to submit plan with schedule s by December 2017.	MOUD to submit plan within one (1) month.
<b>2.3.19</b>	Integrated passenger terminals to be created with mixed use and multi-modal facilities for passenger comfort, integrating regional and local public transit systems.	Ministry of Railways and state governments	Immediate	MoUD to submit plan within one (1) month after coordination with Railways and State Government.
<b>2.3.20</b>	Implement traffic impact assessment of infrastructure project for planning and management.	Ministry of Urban Development , Municipal governments, planning departments of cities, DDA in Delhi	Immediate	MoUD to submit plan within one (1) month.

#### 2.4 Non-motorized transport (NMT)network

<b>S. No.</b>	<b>Action points</b>	<b>Agency responsible</b>	<b>Revised timeline for implementation</b>	<b>Decision during the Meetings in MoEF&amp;CC</b>
<b>2.4.1</b>	<p><b>Prepare and implement zonal plans for developing an NMT network. This should include the following action points with appropriate timelines for implementation:</b></p> <ul style="list-style-type: none"> <li>Implement network plan for footpaths on</li> </ul>	PWD, MCD, NDMC, DDA, Traffic Police, UTIPEC	All NCR states to provide plans with clear deliverables and schedule for last- mile connectivity by February 28, 2018	State Government of Delhi and NCR to submit plan within three (3) months.

	<p>all roads, as per the IRC codes and Street Design Guidelines. Target specific kilometers of footpaths and cycle tracks to be completed in a phased manner and cover the entire city.</p> <p>Identify roads where dedicated and wide footpaths and cycle tracks (two-way) can be created on either side of the street, as per Street Design Guidelines.</p> <ul style="list-style-type: none"><li>• Implement a network plan for more secondary street networks and ungated streets to provide direct shortest routes for pedestrians and cyclists. Vehicular traffic can also be redistributed from major junctions through multiple routes to decongest. Signal-free corridors should be avoided as more road-space only attracts more traffic and impedes people's movement.</li><li>• Plan and upgrade pedestrian / NMT crossings at least every 250 m, with pedestrian signals and signages. These should preferably be at-grade. Reduce block sizes to reduce walking and cycling distances.</li><li>• Synchronization of signals should be</li></ul>			
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	<p>implemented on a priority basis with an integrated IT- based traffic management system so that inspite of having frequent at-grade pedestrian cross- ings, traffic can move swiftly across signals.</p> <ul style="list-style-type: none"> <li>• Cycle sharing systems being introduced as feeders to public transport to be expanded to cover entire Delhi.</li> <li>• Identify and notify key commercial areas with high footfalls and good public transport connectivity to create pedestrian plazas.</li> <li>• Make safety and walkability audits of walking and cycling infrastructure mandatory. Encroachment of NMT lanes to be made punishable offence under the current provision of law.</li> </ul>			
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## 2.5 Parking policy to reduce congestion and pollution

S. No.	Action points	Agency responsible	Revised timeline for implementation	Decision during the Meetings in MoEF&C
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2.5.1	<p><b>Parking policy and enforcement measures to be prepared and finalized for implementation in Delhi and NCR. To include – i) Enforcement strategies ii) Parking pricing policy and iii) Parking management strategies. Delhi Master Plan 2021 has provided for a Parking District Management Plan.</b></p>	<p><b>Delhi:</b> DOE, UTIPEC, all municipal agencies, traffic police, transport dept.  <b>NCR:</b> All state governments, transport departments urban development departments</p>	<p>Implement parking policy by February 28, 2018</p>	<p>Agreed  Other NCR states to study the Delhi model and adopt according to their requirements.</p>
<b>ENFORCEMENT AND MANAGEMENT</b>				
2.5.2	<ul style="list-style-type: none"> <li>• Physically demarcate legal parking areas. Equip them with metering systems, proper signages, IT for information on parking availability to reduce cruising time and on-street management.</li> <li>• Existing / planned public parking facilities and on- street and off-street parking (including multi- level) facilities should be bundled for management by a single agency/ operator. New stand-alone parking only sites are mostly not required since parking is permitted in all use zones.</li> <li>• Parking facilities within developments (e.g. commercial/ residential/ institutional) should be shared and priced for enabling use by different types of</li> </ul>	<p>Municipal corporations in Delhi and NCR Urban development department</p>	<p>February 28, 2018   MCD &amp; Municipal Corporation of NCR</p>	<p>Agreed  Other NCR states to study the Delhi model and adopt according to their requirements.</p>

	<p>users during different times of the day, thus bringing down total parking space demand.</p> <ul style="list-style-type: none"> <li>Plan and implement parking provision for buses, commercial vehicles and IPT- NMT modes, and for the differently- abled.</li> </ul>			
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**PARKING PRICING AND PENALTY**

2.5.3	<ul style="list-style-type: none"> <li>Introduce and further upgrade variable time- based pricing, as per market demand. Coordinated off- street and on- street / surface pricing in commercial and residential areas, and parking permits in residential areas. Parking should be charged as per duration, location in city and size of the vehicle.</li> <li>Take steps to prevent parking of vehicles in the non-designated areas. Penalties related to parking should be charged 10 times the parking fee along with impounding of vehicles after a certain level of violation.</li> <li>Strict penalty for</li> </ul>		28 <sup>th</sup> February, 2018	To be part of Parking policy expected to be finalized by 31 <sup>st</sup> March 2018
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	<p>violation of parking regulations and walkway encroachment. Parking on footpaths should be made a cognizable offence under the Delhi Municipal Corporation Act and Police Act. Reform parking lease agreements to increase parking revenue for local area development and public transport improvement.</p>			
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## 2.6 Traffic management

S. No.	Action points	Agency responsible	Revised timeline for implementation	Decision
2.6.1	<ul style="list-style-type: none"> <li>Introduce early alarm system during traffic congestion for the benefit of commuters on major routes, to facilitate route diversion.</li> </ul>	PWD, MCD, NDMC, DDA, Traffic Police, UTTIPEC  <b>NCR:</b> All state governments, transport departments urban development departments	State traffic police departments of Delhi, UP, Haryana and Rajasthan to implement this plan on traffic management by May 2018	Agreed  ITMS project of DDA pending with MHA.
2.6.2	<ul style="list-style-type: none"> <li>Consider introducing plan for flexi / staggered timings to minimize peak movement of vehicles on roads.</li> </ul>		May 2018	Agreed
2.6.3	<ul style="list-style-type: none"> <li>Synchronize traffic movements / introduce intelligent traffic systems for lane-driving.</li> </ul>		May 2018	Agreed
2.6.4	<ul style="list-style-type: none"> <li>Formulate action plan for controlling decongestion of fuel stations including increasing the number of dispensing machines.</li> </ul>		May 2018	Agreed
2.6.5	<ul style="list-style-type: none"> <li>Electronic monitoring of traffic violations.</li> </ul>		May 2018	Agreed

<b>2.6.6</b>	<ul style="list-style-type: none"> <li>Examine existing framework for removing broken down buses / trucks from roads and create a system for speedy removal and ensuring minimal disruption to traffic from such buses / trucks.</li> </ul>		May 2018	Agreed
<b>2.6.7</b>	<ul style="list-style-type: none"> <li>Conduct audit of traffic intersections and install functional traffic signals at all major inter sections in all NCR cities.</li> </ul>		May 2018	Agreed
<b>2.6.8</b>	<ul style="list-style-type: none"> <li>Conduct review of traffic signaling system at all intersections in Delhi / Noida and Gurugram and other NCR towns that are traffic hotspots and bring requisite changes to reflect the traffic movement pattern at intersections.</li> </ul>		May 2018	Agreed
<b>2.6.9</b>	<ul style="list-style-type: none"> <li>Enforce lane driving through heavy fining as in Mumbai.</li> </ul>		May 2018	Agreed

## 2.7 Power plants and industries

S. No.	Action points	Agency responsible	Revised timeline for implementation	Decision
2.7.1	Permanent closure of Badarpur Power Plant after commissioning of the Tughlakabad sub-station or move towards cleaner natural gas	NTPC and Power-grid corporation	Badarpur will be permanently closed by mid-2018	Agreed
2.7.2	Closure of Badarpur during peak winter months when Graded Response Action Plan is in force	NTPC/DPCC	Done	Agreed
2.7.3	Monitoring of flyash pond at Badarpur, particularly during summer months to control fugitive dust	DPCC	Done	Agreed
2.7.4	Plan for site restoration of over 600 ha fly ash pond of Badarpur	NTPC	Done. NTPC has submitted to DPCC on-site remediation before permanent closure	Agreed
2.7.5	Time-bound action based on plan for restoration of fly ash pond land area	NTPC	Site remediation by mid-July 2018	Agreed
2.7.6	Move to full utilization of the cleaner natural gas-based Bawana station for power supply to Delhi	Department of Power, Delhi with GAIL	Immediate	The recommendation is already implemented to a substantive extent with the decision regarding full utilization of one unit of the

				Bawana Plant. Unit 1 should be made operational by 1/3/2018.
<b>2.7.7</b>	Progressively close the older and more polluting thermal power plants in NCR and to move to cleaner natural gas. Change the merit order dispatch policy of the Union government so as to incentivize cleaner plants to operate in the region.	Ministry of Power and state governments	MoP and MoPNG to provide plan with timelines by February 28, 2018	
<b>INDUSTRIES</b>				
<b>2.7.8</b>	Urgent ban on furnace oil, pet coke, which are dirty industrial fuels with high Sulphur and heavy metals:	MoEF&CC and state governments	Done. State governments of Delhi, Haryana, UP and Rajasthan to comply with SC order of October 24, 2017	Agreed
<b>2.7.9</b>	Strict enforcement against illegal use of such fuels, including fuels which do not have specifications laid down or are included in the acceptable fuels as mandated by state pollution control boards	DPCC and state pollution control boards	Immediate . State government of Delhi, Rajasthan, UP and Haryana to issue notification under Section 19.1 and 19.3 of Air Act, 1980 by December 31, 2017  State govt.	Agreed

<b>2.7.10</b>	Strict enforcement of air pollution control measures in all industries, includes those located in unauthorized areas.	DPCC and all state pollution boards	Immediate	Agreed
<b>2.7.11</b>	Stop unrestricted import of such fuels, which are high in pollution because of high Sulphur or toxins	Ministry of Commerce	Immediate	The matter is under discussion with MOPNG and DGFT and will be finalized shortly
<b>2.7.12</b>	Ensure that the sale, transportation and distribution of such fuels follows CMVR strictly for hazardous goods and ensure that there is no sale in restricted regions	Oil marketing companies	Immediate	Agreed
<b>2.7.13</b>	Ensure calibration and working of Continuous Emission Monitoring System (CEMS) in all industries in NCR and provide information to monitoring agencies to begin and work out how this information can be provided to public as this will ensure that the system is operational	CPCB, DPCC and all state boards	Immediate	Agreed
<b>BRICK-KILNS</b>				
<b>2.7.14</b>	Convert all brick kilns to zigzag technology – from natural draft kilns to induced-draft kilns (zigzag technology).	MOEF, CPC and state pollution control boards	Done as per following schedule. Only brick kilns which have converted to zig-zag technology and have been certified by the state pollution	Agreed

			control board will be allowed to operate during winter 2017-2018. By July 1, 2018, only brick kilns with zig-zag technology will be allowed to operate in NCR	
<b>INCINERATORS</b>				
<b>2.7.15</b>	Implement emission norms for incinerators and examine the feasibility of less polluting alternatives.	Department of Environment, CPCB, DPCC, SPCBs	Immediate	Completed
<b>2.7.16</b>	Implement CEMS for incinerators and provide data on emissions on an open platform progressively.		Immediate	June, 2018
<b>2.7.17</b>	Develop a siting policy for biomedical incinerators.		February 28, 2018	Completed
<b>WASTE-TO-ENERGY PLANTS</b>				
<b>2.7.18</b>	Strict implementation of emission norms, use state of the art technology and provide emission data to State Pollution Control Boards.	State Pollution Control Boards	Immediate	March, 2018
<b>2.7.19</b>	Develop a siting policy for waste to energy plants	MOEFCC, CPCB, State Pollution Control Boards	December 31, 2017	Completed

## 2.8 Generator sets

<b>S. No.</b>	<b>Action points</b>	<b>Agency responsible</b>	<b>Revised timeline for implementation</b>	
<b>2.8.1</b>	Ensure that only those DG sets that meet the standards are allowed to operate.	CPCB, DPCC, SPCBs and Department of Environment	Immediate	Agreed
<b>2.8.2</b>	Operating time of DG sets should be regulated according to graded action plan.	CPCB, DPCC, SPCBs and Department of Environment	Done	Agreed
<b>2.8.3</b>	Only approved fuel should be allowed.	CPCB, DPCC, SPCBs and Department of Environment	Immediate	Agreed
<b>2.8.4</b>	Non-usage of DG sets in social events as per graded action plan.	CPCB, DPCC, SPCBs and Department of Environment	Done	Agreed
<b>2.8.5</b>	Alternate power systems should be promoted in cell towers, and use of DG sets discouraged.		Immediate	Agreed

## 2.9 Open burning (including solid waste and agricultural residues)

S. No.	Action points	Agency responsible	Revised timeline for implementation	
2.9.1	SC order dated 16.12.2015 has directed a complete ban on garbage burning in the entire NCR region. This is being monitored by Delhi and NCR state governments. Take stringent action against open burning of biomass / leaves / tyres etc. to control such activities	Department of Environment, SPCBs DPCC, municipal bodies, DPGS	Immediate	Agreed
2.9.2	Ensure proper collection of horticulture waste (biomass) and composting-cum-gardening approach; municipal zonal offices should be responsible for controlling burning of leaves and garbage on roads / parks. All horticulture agencies should have compost pits in parks.	Municipal bodies and other park owning bodies like DDA in Delhi	Immediate	Agreed

<b>2.9.3</b>	<b>Implement citizen reporting app</b> -- reporting of garbage / municipal solid waste burning through mobile-based applications and other social media platforms linked with Central and state-level control rooms for accountability. Build an awareness campaign through RWAs, Eco Clubs and municipal authorities.		Immediate  Delhi Govt.	Agreed
<b>REGIONAL PROBLEM AND BIOMASS BURNING</b>				
<b>2.9.4</b>	Ensure strict enforcement of ban on burning of agriculture waste and crop residues in Punjab and Haryana.	State governments in NCR and Punjab	Ongoing	Agreed
<b>2.9.5</b>	To increase subsidy for purchase of equipment that eliminates the need for burning stubble and straw.	State governments in NCR and Punjab	Ongoing	Agreed
<b>2.9.6</b>	Enforce the series of directives from the Hon'ble Supreme Court and NGT on ban on agricultural burning and recycling and reuse of this waste.	State governments in NCR and Punjab	Ongoing	Agreed
<b>EPISODIC EVENTS</b>				
<b>2.9.7</b>	<b>Fire crackers</b> -- Implement and monitor the SC order of September 12, 2017	<b>Department of Environment, SPCBs DPCC, DCP</b>	Immediate	Agreed

## 2.10 Domestic chulha burning and open eateries

S. No.	Action points	Agency responsible	Revised timeline for implementation	
2.10.1	In slums and low-income neighbourhoods, as well as roadside eateries/dhabas/restaurants etc promote and give access to LPG and electricity. Link commercial license to clean fuels.	Department of Environment, MoPNG	Immediate	Agreed
2.10.2	Prohibit use of coal in hotels and restaurants, eliminate use of kerosene for cooking in NCR and incentivize move to LPG.	MoPNG and state governments	Immediate	Agreed
2.10.3	A targeted programme can be developed with the Union Ministry of Petroleum and Natural Gas for wider distribution of LPG.	MoPNG and state governments	Immediate	Agreed

## 2.11 Control measures for road dust

S. No.	Action points	Agency responsible	Revised timeline for implementation	
2.11.1	•SC direction dated December 16, 2016 has directed repair and building of pavements and vacuum cleaning of roads. This needs to	Department of Environment, municipal bodies, DDA, PWD, CPWD, DSIIDC,	Immediate and intensify during implementation of GRAP	Agreed

	<p>be expedited and implemented across NCR. <b>Based on this, the following may be carried out:</b></p> <ul style="list-style-type: none"> <li>•Implement street design guidelines for footpaths and cycle tracks with adequate vegetative buffers and paving of roads. Take steps for blacktopping / pavement of road shoulders to avoid road dust.</li> <li>•Phase-in mechanical / vacuum-based street sweeping wherever feasible; introduce wet / mechanized vacuum sweeping of roads.</li> <li>•Implement truckloading guidelines; use of appropriate enclosures for haul trucks; gravel paving for all haul routes.</li> <li>•Sprinkling of recycled water (without compromising other uses); introduce water fountains at major traffic intersections, wherever feasible.</li> <li>•Maintain pothole-free roads for free flow of traffic to reduce emissions and dust.</li> <li>•Increase green cover in Delhi. Undertake greening of open areas, gardens, community places, schools and</li> </ul>	<p>DTTDC Road-owning agencies, Police Dept. Forest Dept.</p>		
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	•housing societies.			
<b>2.11.2</b>	•Enforcement of air pollution control in concrete batching (use of water spray and wind breakers, bag filter at silos and enclosures, hoods, curtains etc.)		Immediate	Agreed

## 2.12 Control measures for construction dust

<b>S. No.</b>	<b>Action points</b>	<b>Agency responsible</b>	<b>Revised timeline for implementation</b>	
<b>2.12.1</b>	SC order dated 16.12.2015 directed the Delhi govt to ensure measures are taken to mitigate dust pollution from construction. The EPCA has given a concise check list for inspection of construction sites. This should be implemented. Undertake control measures for fugitive emissions from material handling, conveying and screening operations through water sprinkling, curtains, barriers and dust suppression units. Penalties have also been enhanced. Needs enforcement.	Municipal bodies, PWD, CPWD, DSIIDC, DTTDC, road owning agencies	Immediate	Agreed

<b>2.12.2</b>	For material handling and construction demolition, it should be obligatory on part of the developers to provide evidence of debris disposal at designated sites. Promote recycling of construction material. Implement provision of Central regulations for construction and demolition waste	Municipal bodies, PWD, CPWD, DSIIDC, DTTDC, road owning agencies	Immediate	Agreed
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