



## STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

Environment department,  
Room No. 217, 2nd floor,  
Mantralaya, Annexe,  
Mumbai- 400 032.  
Date: May 2, 2017

To,  
**Shri Brijesh Dattani**  
at S.No.252A, 255A, S.No.256, H.No.2,4 S.No.257, H.No.2/1, 3, 4, 5, 10/1,11,

**Subject:** Environment Clearance for Building & Construction Project

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification - 2006, by the State Level Expert Appraisal Committee-II, Maharashtra in its th meeting and recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its SEIAA Meeting No. 110th meetings.

2. It is noted that the proposal is considered by SEAC-II under screening category (8a) B2 as per EIA Notification 2006.

**Brief Information of the project submitted by you is as below :-**

1.Name of Project	Dattani Village
2.Type of institution	Private
3.Name of Project Proponent	Shri Brijesh Dattani
4.Name of Consultant	M/s S G M Corporate Consultant Pvt Ltd
5.Type of project	Residential cum commercial Project
6.New project/expansion in existing project/modernization/diversification in existing project	Expansion
7.If expansion/diversification, whether environmental clearance has been obtained for existing project	Not applicable
8.Location of the project	S.No.252A, 255A, S.No.256, H.No.2,4 S.No.257, H.No.2/1, 3, 4, 5, 10/1,11,
9.Taluka	Vasai
10.Village	Sandor
11.Whether in Corporation / Municipal / other area	VVCMC
12.IOD/IOA/Concession/Plan Approval Number	NA IOD/IOA/Concession/Plan Approval Number: CIDCO/VVSR/CC/BP-736/W/4429 / 21/02/2003 & VVCMC/TP/RDP/VP- 0762/0334/ 2013-14 dated 09/01/2014 Approved Built-up Area: 55701.51
13.Note on the initiated work (If applicable)	This is an old ongoing project which is started prior to July 2004. The constructed area of proposed buildings after 14/09/2006 is 15818.55 sq. m
14.LOI / NOC / IOD from MHADA/ Other approvals (If applicable)	NA
15.Total Plot Area (sq. m.)	66490.00
16.Deductions	8442.96
17.Net Plot area	58047.04

**SEIAA Meeting No: SEIAA Meeting No. 110 Meeting Date: May 2, 2017 ( SEIAA-STATEMENT-0000000321 )**  
**SEIAA-MINUTES-0000000083**  
**SEIAA-EC-0000000063**

Page 1 of 12

  
**Shri. Anil Diggikar (Member Secretary SEIAA)**

18 (a).Proposed Built-up Area (FSI & Non-FSI)	FSI area (sq. m.): 55,701.51
	Non FSI area (sq. m.): 24,957.76
	Total BUA area (sq. m.): 87968.63
18 (b).Approved Built up area as per DCR	Approved FSI area (sq. m.):
	Approved Non FSI area (sq. m.):
	Date of Approval:
19.Total ground coverage (m2)	21,250.00
20.Ground-coverage Percentage (%) (Note: Percentage of plot not open to sky)	34
21.Estimated cost of the project	985000000



# Government of Maharashtra

22.Production Details				
Serial Number	Product	Existing (MT/M)	Proposed (MT/M)	Total (MT/M)
1	Not applicable	Not applicable	Not applicable	Not applicable
23.Total Water Requirement				
Dry season:	Source of water	VVMC		
	Fresh water (CMD):	176		
	Recycled water - Flushing (CMD):	126		
	Recycled water - Gardening (CMD):	30		
	Swimming pool make up (Cum):	05		
	Total Water Requirement (CMD) :	332		
	Fire fighting - Underground water tank(CMD):	50,100,75, 50 & 50		
	Fire fighting - Overhead water tank(CMD):	25, 50, 35, 25, 25		
	Excess treated water	79		
Wet season:	Source of water	VVMZ		
	Fresh water (CMD):	176		
	Recycled water - Flushing (CMD):	126		
	Recycled water - Gardening (CMD):	00		
	Swimming pool make up (Cum):	05		
	Total Water Requirement (CMD) :	302		
	Fire fighting - Underground water tank(CMD):	50,100,75, 50 & 50		
	Fire fighting - Overhead water tank(CMD):	25, 50, 35, 25, 25		
	Excess treated water	109		
Details of Swimming pool (If any)	i swimming pool is proposed , having dimension of 18 x 12.5 m			

## 24.Details of Total water consumed

Particulars	Consumption (CMD)			Loss (CMD)			Effluent (CMD)		
Water Requirement	Existing	Proposed	Total	Existing	Proposed	Total	Existing	Proposed	Total
Domestic	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

<b>25.Rain Water Harvesting (RWH)</b>	<b>Level of the Ground water table:</b>	5-6 m
	<b>Size and no of RWH tank(s) and Quantity:</b>	10 nos. X (1.0 mtr. Ø x 5.0 mtr. Deep) ring well
	<b>Location of the RWH tank(s):</b>	Ground
	<b>Quantity of recharge pits:</b>	10
	<b>Size of recharge pits :</b>	Size (1.0 x 0.5 x 1.0) m
	<b>Budgetary allocation (Capital cost) :</b>	25.0
	<b>Budgetary allocation (O &amp; M cost) :</b>	1.0
	<b>Details of UGT tanks if any :</b>	Domestic, Flushing & firefighting as per nomrs

<b>26.Storm water drainage</b>	<b>Natural water drainage pattern:</b>	Yes
	<b>Quantity of storm water:</b>	1.32 cum/Sec
	<b>Size of SWD:</b>	600 x 350 mm

<b>27.Sewage and Waste water</b>	<b>Sewage generation in KLD:</b>	245
	<b>STP technology:</b>	MBBR
	<b>Capacity of STP (CMD):</b>	03 (75, 100, 125) KLD
	<b>Location &amp; area of the STP:</b>	ground ; total area about 300 sq.m
	<b>Budgetary allocation (Capital cost):</b>	85
	<b>Budgetary allocation (O &amp; M cost):</b>	10.75

28.Solid waste Management		
Waste generation in the Pre Construction and Construction phase:	Waste generation:	100-150 kg/day
	Disposal of the construction waste debris:	Low lying area of site/ approved site.
Waste generation in the operation Phase:	Dry waste:	624 kg/day
	Wet waste:	691 kg/day
	Hazardous waste:	00
	Biomedical waste (If applicable):	00
	STP Sludge (Dry sludge):	40 kg
	Others if any:	NA
Mode of Disposal of waste:	Dry waste:	Segregated/Sale/Collected by local authority
	Wet waste:	Composting through OWC/Vermipits & used at site/ Handed over to local as manure
	Hazardous waste:	NA
	Biomedical waste (If applicable):	NA
	STP Sludge (Dry sludge):	Manure
	Others if any:	NA
Area requirement:	Location(s):	Ground
	Area for the storage of waste & other material:	55.12 sq.m
	Area for machinery:	8.0 sq.m
Budgetary allocation (Capital cost and O&M cost):	Capital cost:	18.0
	O & M cost:	2.25

Government of  
Maharashtra

29.Effluent Charecterestics					
Serial Number	Parameters	Unit	Inlet Effluent Charecterestics	Outlet Effluent Charecterestics	Effluent discharge standards (MPCB)
1	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Amount of effluent generation (CMD):		Not applicable			
Capacity of the ETP:		Not applicable			
Amount of treated effluent recycled :		Not applicable			
Amount of water send to the CETP:		Not applicable			
Membership of CETP (if require):		Not applicable			
Note on ETP technology to be used		Not applicable			
Disposal of the ETP sludge		Not applicable			



# Government of Maharashtra



30.Hazardous Waste Details							
Serial Number	Description	Cat	UOM	Existing	Proposed	Total	Method of Disposal
1	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

31.Stacks emission Details						
Serial Number	Section & units	Fuel Used with Quantity	Stack No.	Height from ground level (m)	Internal diameter (m)	Temp. of Exhaust Gases
1	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

32.Details of Fuel to be used				
Serial Number	Type of Fuel	Existing	Proposed	Total
1	Not applicable	Not applicable	Not applicable	Not applicable

33.Source of Fuel	Not applicable
34.Mode of Transportation of fuel to site	Not applicable

35.Energy		
<b>Power requirement:</b>	Source of power supply :	MSEB
	During Construction Phase: (Demand Load)	325 KVA
	DG set as Power back-up during construction phase	125 KVA
	During Operation phase (Connected load):	12520 KVA
	During Operation phase (Demand load):	6140 KVA
	Transformer:	6 X 1250 KVA
	DG set as Power back-up during operation phase:	630 X 2, 500, 250 KVA
	Fuel used:	HSD
	Details of high tension line passing through the plot if any:	NA
<b>Energy saving by non-conventional method:</b>		
? Light fixtures will be used with energy saving LED & T5 fluorescent tube with electronic chocks. ? Use of Solar energy for street lightings and solar water heater. ? Small capacity transformers having low no load and load losses. ? Selection of Energy efficient equipments (BEE STAR RATED)		
<b>36.Detail calculations &amp; % of saving:</b>		

Serial Number	Energy Conservation Measures		Saving %				
1	use of LED lights, , Common light on solar, energy efficient euipments		15.20 % ( in common area lightings)				
37.Details of pollution control Systems							
Source	Existing pollution control system		Proposed to be installed				
Not applicable	Not applicable		Not applicable				
Budgetary allocation (Capital cost and O&M cost):	Capital cost:	65.00 Lacs					
	O & M cost:	3.75 Lacs					
38.Environmental Management plan Budgetary Allocation							
a) Construction phase (with Break-up):							
Serial Number	Attributes	Parameter	Total Cost per annum (Rs. In Lacs)				
1	Sanitation	pH, BOD, COD, TSS	8.0				
2	Health Check up	Na	2.0				
3	Safety	NA	5.0				
4	Water	as per IS 10500	5.0				
b) Operation Phase (with Break-up):							
Serial Number	Component	Description	Capital cost Rs. In Lacs	Operational and Maintenance cost (Rs. in Lacs/yr)			
1	STP	MBBR	85.00	10.75			
2	RWH SYSTEM	Ringwells & Pits	25.00	1.0			
3	Environmental Monitoring	, Air, Noise, water, Soil	00	1.50			
4	Solid Waste Management	pH, NPK	18.00	2.25			
5	Energy conservation	LED, Solar	65.00	3.75			
6	Green Belt	Trees Plantation	25.00	4.25			
39.Storage of chemicals (inflammable/explosive/hazardous/toxic substances)							
Description	Status	Location	Storage Capacity in MT	Maximum Quantity of Storage at any point of time in MT	Consumption / Month in MT	Source of Supply	Means of transportation
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
40.Any Other Information							
No Information Available							



	<b>CRZ/ RRZ clearance obtain, if any:</b>	NA as per prevailing CZMP Map of Vasai Virar region.
	<b>Distance from Protected Areas / Critically Polluted areas / Eco-sensitive areas/ inter-State boundaries</b>	NA
	<b>Category as per schedule of EIA Notification sheet</b>	(8a) B2
	<b>Court cases pending if any</b>	NA
	<b>Other Relevant Informations</b>	This case is recommended by SEAC-2 in 50th meeting in september 2016.
	<b>Have you previously submitted Application online on MOEF Website.</b>	Yes
	<b>Date of online submission</b>	25-07-2016

**3. The proposal has been considered by SEIAA in its SEIAA Meeting No. 110th meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions:**

**Specific Conditions:**

**General Conditions:**

<b>I</b>	E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016.
<b>II</b>	The Occupancy Certificate shall be issued by the Local Planning Authority to the project only after ensuring sustained availability of drinking water, connectivity of sewer line to the project site and proper disposal of treated water as per environmental norms.
<b>III</b>	This environmental clearance is issued subject to obtaining NOC from Forestry & Wild life angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily implies that Forestry & Wild life clearance granted to the project which will be considered separately on merit.
<b>IV</b>	PP has to abide by the conditions stipulated by SEAC& SEIAA.
<b>V</b>	The height, Construction built up area of proposed construction shall be in accordance with the existing FSI/FAR norms of the urban local body & it should ensure the same along with survey number before approving layout plan & before according commencement certificate to proposed work. Plan approving authority should also ensure the zoning permissibility for the proposed project as per the approved development plan of the area.
<b>VI</b>	If applicable Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.
<b>VII</b>	All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.
<b>VIII</b>	Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
<b>IX</b>	The solid waste generated should be properly collected and segregated. dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
<b>X</b>	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
<b>XI</b>	Arrangement shall be made that waste water and storm water do not get mixed.
<b>XII</b>	All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.

XIII	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.
XIV	Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
XV	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
XVI	Construction spoils, including bituminous material and other hazardous materials must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water.
XVII	Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Maharashtra Pollution Control Board.
XVIII	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.
XIX	The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from concern authority shall be taken.
XX	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
XXI	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/MPCB.
XXII	Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within the 100Km of Thermal Power Stations).
XXIII	Ready mixed concrete must be used in building construction.
XXIV	Storm water control and its re-use as per CGWB and BIS standards for various applications.
XXV	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
XXVI	The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.
XXVII	The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the MPCB and Environment department before the project is commissioned for operation. Discharge of this unused treated effluent, if any should be discharge in the sewer line. Treated effluent emanating from STP shall be recycled/refused to the maximum extent possible. Discharge of this unused treated effluent, if any should be discharge in the sewer line. Treatment of 100% gray water by decentralized treatment should be done. Necessary measures should be made to mitigate the odour problem from STP.
XXVIII	Permission to draw ground water and construction of basement if any shall be obtained from the competent Authority prior to construction/operation of the project.
XXIX	Separation of gray and black water should be done by the use of dual plumbing line for separation of gray and black water.
XXX	Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
XXXI	Use of glass may be reduced up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.
XXXII	Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.
XXXIII	Energy conservation measures like installation of CFLs /TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible like installing solar street lights, common solar water heaters system. Project proponent should install, after checking feasibility, solar plus hybrid non-conventional energy source as source of energy.
XXXIV	Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel. The location of the DG sets may be decided with in consultation with Maharashtra Pollution Control Board.

XXXV	Noise should be controlled to ensure that it does not exceed the prescribed standards. During nighttime the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
XXXVI	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
XXXVII	Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, which is proposed to be mandatory for all air-conditioned spaces while it is aspiration for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.
XXXVIII	The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
XXXIX	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.
XL	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.
XLI	Six monthly monitoring reports should be submitted to the Regional office MoEF, Bhopal with copy to this department and MPCB.
XLII	Project proponent shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. As agreed during the SEIAA meeting, PP to explore possibility of utilizing excess treated water in the adjacent area for gardening before discharging it into sewer line No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement in Para 2. Prior certification from appropriate authority shall be obtained.
XLIII	Wet garbage should be treated by Organic Waste Converter and treated waste (manure) should be utilized in the existing premises for gardening. And, no wet garbage will be disposed outside the premises. Local authority should ensure this.
XLIV	Local body should ensure that no occupation certification is issued prior to operation of STP/MSW site etc. with due permission of MPCB.
XLV	A complete set of all the documents submitted to Department should be forwarded to the Local authority and MPCB.
XLVI	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Department.
XLVII	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
XLVIII	Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department.
XLIX	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <a href="http://ec.maharashtra.gov.in">http://ec.maharashtra.gov.in</a> .
L	Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
LI	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
LII	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub> (ambient levels as well as stack emissions) or critical sector parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
LIII	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
LIV	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.

4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.

5. In case of submission of false document and non-compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environment clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.

6. The Environment department reserves the right to add any stringent condition or to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.

7. Validity of Environment Clearance: The environmental clearance accorded shall be valid as per EIA Notification, 2006, and amendments by MoEF&CC Notification dated 29th April, 2015.

8. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.

9. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.

10. Any appeal against this Environment clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune), New Administrative Building, 1st Floor, D- Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Shri. Anil Diggikar (Member Secretary SEIAA)

**Copy to:**

1. SECRETARY MOEF & CC
2. IA- DIVISION MOEF & CC
3. MEMBER SECRETARY MAHARASHTRA POLLUTION CONTROL BOARD MUMBAI
4. REGIONAL OFFICE MOEF & CC NAGPUR
5. MUNICIPAL COMMISSIONER THANE
6. REGIONAL OFFICE MPCB THANE
7. REGIONAL OFFICE MIDC AMBERNATH
8. REGIONAL OFFICE MIDC THANE
9. REGIONAL OFFICE MIDC TARAPUR
10. MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD
11. COLLECTOR OFFICE THANE
12. COLLECTOR OFFICE PALGHAR