

(Against the Order of Lahore High Court, Lahore dated 31.01.2019, passed in W.P. No. 5898/2019)

(a) Punjab Industries (Control on Establishment and Enlargement) Ordinance (IV of 1963)---

---S. 3---Restrictions on establishment of industrial undertakings---Zoning and classification of land---Declaring an area as 'positive' or 'negative' area---Purpose and scope---Authority to regulate land use, introduce zones or negative or positive areas, was recognized as the police power of the state, asserted for public welfare---Zoning of the Province into positive and negative areas was a means towards achieving organized and planned industrial growth without impinging on the social, environmental, ecological, civic and economic interests of the locals---Zoning divided land into distinct geographical areas and imposed restrictions with respect to use of land in each area---Such regulatory controls allowed or disallowed use of land in a particular geographical zone, therefore, any application requesting permission to establish or enlarge an industrial undertaking under S. 3 of the Punjab Industries (Control on Establishment and Enlargement) Ordinance, 1963 ('the Ordinance') in an area that was already marked as a zone (negative or positive) was decided accordingly---Organization and planning under the Ordinance was, therefore, in effect, actualized on the basis of the parameters mentioned under S. 3(b) of the Ordinance.

Euclid v. Ambler Realty Co. 272 U.S. 365, 387 ref.

(b) Punjab Industries (Control on Establishment and Enlargement) Ordinance (IV of 1963)---

---S. 3(b)---Restrictions on establishment of industrial undertakings---Sustainable development---Scope---Terms 'prejudicial to national interest', 'injurious to health' and 'source of nuisance' used in S. 3(b) of the Punjab Industries (Control on Establishment and Enlargement) Ordinance, 1963 ('the Ordinance')---Interpretation---Organized and planned growth in the world today would undoubtedly mean "sustainable development" and the terms prejudicial to national interest, injurious to health and source of nuisance [mentioned in S. 3(b) of the Ordinance] would naturally encompass the pressing issues of the time i.e., climate change; environmental degradation; food and health safety; air pollution; water pollution; noise pollution; soil erosion; natural disasters; and desertification and flooding having an appreciable impact on public health, food safety, natural resource conservation, environmental protection, social equity, social choice, etc.

(c) Punjab Industries (Control on Establishment and Enlargement) Ordinance (IV of 1963)---

---S. 3---Restrictions on establishment of industrial undertakings---Zoning of area as 'positive' or 'negative' area---Scope---Zoning of areas for the purposes of the Punjab Industries (Control on Establishment and Enlargement) Ordinance, 1963 was not absolute but was subject to change provided such change was necessitated by new circumstances.

Zoning of areas into positive and negative was not absolute. Organization and planning of future growth could not be frozen in time and was never intended to be static. Zoning allowed the flexibility needed to respond to change. The choices that governed a particular territorial zoning may not hold good indefinitely. Land use patterns changed giving rise to opportunities to revise earlier standards as zoning measures were introduced in public interest. The value of zoning laid in the flexibility by which it was administered to react to new social and economic situations. Daniel R. Mandelker, 'Spot Zoning: New Ideas for an Old Problem' (2016) 48 Urb. Law. 737 and Keith H. Hirokawa, 'Making Sense of a "Misunderstanding of the Planning Process" ' (2012) 44 Urb. Law. 295 ref.

(d) Punjab Industries (Control on Establishment and Enlargement) Ordinance (IV of 1963)---

----S. 3---Punjab Local Government Act (XVIII of 2013), Ss. 4, 72(2)(a), 77(n), 81(1)(d) & 87(1)(g)--
 -Restrictions on establishment of industrial undertakings---Zoning and classification of land---Whether
 mandate of Provincial Government or Local Government---By way of impugned notification
 establishment of new cement plants, and enlargement and expansion of existing cement plants was not
 allowed in the "Negative Area" falling within the Districts 'C' (Chakwal) and 'K' (Khushab)---
 Petitioner-company that owned and ran a cement manufacturing plant in District 'C' challenged the
 notification on the ground that the Provincial Government and its concerned department lacked
 jurisdiction to issue the impugned notification and only the Local Government under the Punjab Local
 Government Act, 2013 ("Act") could exercise jurisdiction over matters relating to zoning and
 classification of land, land use, environment control, water sources and ecological balances---Held,
 that the present matter involved a trans-district issue which could be dealt with by the Provincial
 Government exercising the authority conferred by the Punjab Industries (Control on Establishment and
 Enlargement) Ordinance, 1963 ('the Ordinance')---Even so, the functions of the local government could
 not mean to trump the executive authority of the Provincial Government---Ordinance of 1963 was a
 special law compared to the Act and therefore took preference---Furthermore, under S. 4 of the Act,
 local governments had to function within the provincial framework and were to faithfully observe the
 federal and provincial laws---In the performance of their functions, the local governments were not to
 impede or prejudice the exercise of the executive authority of the Provincial Government---Supreme
 Court upheld the impugned notification---Petition for leave to appeal was dismissed and leave was
 refused.

LDA v. Imrana Tiwana 2015 SCMR 1739 ref.

(e) Punjab Industries (Control on Establishment and Enlargement) Ordinance (IV of 1963)---

----S. 3---Constitution of Pakistan, Arts. 18 & 25---Restrictions on establishment of industrial
 undertakings---Zoning of area as 'negative' area---Whether discriminatory and infringement of right to
 trade and business---By way of impugned notification establishment of new cement plants, and
 enlargement and expansion of existing cement plants was not allowed in the "Negative Area" falling
 within the Districts 'C' (Chakwal) and 'K' (Khushab)---Petitioner-company that owned and ran a cement
 manufacturing plant in District 'C' challenged the notification on the ground that its right to freedom
 of trade, business and profession guaranteed under Art. 18 of the Constitution was infringed and the
 actions of the Provincial authorities unreasonably discriminated between the petitioner and other
 cement manufacturers---Held, that the rights granted under Art. 18 of the Constitution were "subject
 to such qualifications" that had been "prescribed by law"---Punjab Industries (Control on
 Establishment and Enlargement) Ordinance, 1963 ('the Ordinance') forbade the setting up of any
 industrial undertaking except by the prior written permission of the Government---Placing an embargo
 on establishment and expansion of cement plants in the Negative Area to provide for organized and
 planned growth of industries in the Province in line with the objectives of the Ordinance did not offend
 Art. 18 of the Constitution---Furthermore the decision to impose a ban on the establishment and
 expansion of cement plants was not taken to benefit or punish anyone but to ensure the organized and
 planned growth of industry in the Province in view of the findings of a multidisciplinary study which
 provided reasonable basis for zoning of project area without violating Art. 25 of the Constitution---
 Impugned notification was in accordance with the provisions of the Ordinance and negative area could
 be planned and designed banning industrial activity within its bounds---Petitioner-company was not
 allowed to enlarge or enhance the capacity of its existing cement plant till such time that the Negative
 Area subsisted---Petition for leave to appeal was dismissed and leave was refused.

Tariq Khan Mazari v. Government of Punjab PLD 2016 SC 778 ref.

(f) Constitution of Pakistan---

----Arts. 184(3) & 199---Scientific and technical data presented to court by Government functionaries--
 --Judicial review---Scope---Courts while reviewing scientific and technical determinations generally

exhibited deference to institutional competence because of the specialized nature of the subject matter, as there was a risk that the courts would unravel layers of careful scientific work as a result of their combined ignorance and judicial second-guessing while reviewing science-based regulatory decisions--However, scientific complexity did not provide excuse to evade judicial scrutiny as it needed to be ensured that Government did not transgress its mandate or did not mangle scientific results to produce certain outcomes---Judicial oversight of specialized administrative decision-making was necessary to obviate the possibility of capture and incompetence.

Emily Hammond Meazell, 'Super Deference, the Science Obsession, and Judicial Review as Translation of Agency Science' (2011) 109 Mich. L. Rev. 733, 734; Elizabeth Fisher, Pasky Pascual and Wendy Wagner, 'Science Challenges for Law and Policy: Rethinking Judicial Review of Expert Agencies' (2015) 93 Tex. L. Rev. 1681, 1682; Laura Anzie Nelson, 'Delineating Deference To Agency Science: Doctrine or Political Ideology?' (2010) 40 Env'tl. L. 1057, 1068 and Eduardo Jordao and Susan Rose-Ackerman, 'Judicial Review of Executive Policymaking in Advanced Democracies: Beyond Rights Review' (2014) 66 Admin. L. Rev. 1, 68 ref.

(g) Punjab Industries (Control on Establishment and Enlargement) Ordinance (IV of 1963)---

----S. 3---Constitution of Pakistan, Arts. 9 & 14(1)---Restrictions on establishment of industrial undertakings---Zoning of area as 'negative' area---Precautionary principle of environmental law---Scope---In Dubio Pro Natura, principle of---Scope---By way of impugned notification establishment of new cement plants, and enlargement and expansion of existing cement plants was not allowed in the "Negative Area" falling within the Districts 'C' (Chakwal) and 'K' (Khushab)---Petitioner-company that owned and ran a cement manufacturing plant in District 'C' challenged the notification on the ground that it was not validly issued and it also infringed its various Fundamental rights under the Constitution--Held, that enlargement of an existing cement plant in a negative area attracted the well-established principle of international environmental law called the Precautionary Principle, reflected in Principle 10 of the Rio Declaration, 1992---Said principle provided that where there were threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation---Another emerging environmental principle declared as Principle 5 of the IUCN World Declaration on the Environmental Rule of Law (2016) was 'in dubio pro natura' i.e. in cases of doubt, all matters before courts, administrative agencies, and other decision-makers shall be resolved in a way most likely to favour the protection and conservation of the environment, with preference to be given to alternatives that were least harmful to the environment---Actions were not to be undertaken when their potential adverse impacts on the environment were disproportionate or excessive in relation to the benefits derived therefrom---In the facts of the present case, the Provincial Government was obliged to take a precautionary approach and act in-line with the principle of in dubio pro natura, till, inter alia, a detailed hydrogeological study assessing the potential of groundwater resources for industrial purposes of the project area was carried out---Such approach was also constitutionally compliant as the courts were to protect the fundamental rights of the public and in the present case right to life, sustainability and dignity of the community surrounding the project remained paramount till such time that the Government was of the view that the project of the petitioner-company had no adverse environmental effects---Also, the environment needed to be protected in its own right---Impugned notification was in accordance with the provisions of the Ordinance and negative area could be planned and designed banning industrial activity within its bounds---Petitioner-company was not allowed to enlarge or enhance the capacity of its existing cement plant till such time that the Negative Area subsisted---Petition for leave to appeal was dismissed and leave was refused.

(h) Punjab Environmental Protection Act (XXXIV of 1997)---

----Preamble---Environmental legal personhood---Concept and scope---Approach of personifying the environment in order to protect and preserve nature and its objects was one of the latest evolutions in

environmental law---Man and his environment each needed to compromise for the better of both and this peaceful co-existence required that the law treated environmental objects as holders of legal rights.

Mohd. Salim v. Uttarakhand 2017 (2) RCR (Civil) 636; Human Rights and Peace for Bangladesh v. Bangladesh (2019) W.P. No.13989 of 2016 (HCD) and Alexandre Lillo, 'Is Water Simply a Flow? Exploring an Alternative Mindset for Recognizing Water as a Legal Person' (2018) 19 Vt. J. Env'tl. L. 164, 165 ref.

(i) Punjab Environmental Protection Act (XXXIV of 1997)---

---Preamble---Water justice---Precautionary principle---Scope---In Dubio Pro Natura, principle of---Scope---Approach to be adopted by courts when adjudicating water related disputes---Precautionary principle should be applied in the resolution of water-related disputes---Notwithstanding scientific uncertainty or complexity regarding the existence or extent of risks of serious or irreversible harm to water, human health or the environment, judges should uphold or order the taking of the necessary protective measures having regard to the best available scientific evidence---Consistent with the principle in dubio pro natura, in case of uncertainty, water and environmental controversies before the courts should be resolved, and the applicable laws interpreted, in a way most likely to protect and conserve water resources and related ecosystems---In adjudicating water and water-related cases, judges should be mindful of the essential and inseparable connection that water had with the environment and land uses, and should avoid adjudicating those cases in isolation or as merely a sectoral matter concerning only water---Water justice required appreciation that there were no easy, simple or singular solutions to the water crisis, and that water problems could not be resolved through technical solutions alone but required broader recognition that they were inherently ecological, political and social issues simultaneously.

Farhana Sultana, 'Water justice: why it matters and how to achieve it' (2018) 43 Water International 483; Principle 1 - Water as a Public Interest Good; Principle 2 - Water Justice, Land Use, and the Ecological Function of Property; Principle 5 - Water Justice and Precaution; Principle 6 - In Dubio Pro Aqua and Principle 9 - Water Justice and Environmental Integration ref.

(j) Punjab Industries (Control on Establishment and Enlargement) Ordinance (IV of 1963)---

---S. 3---Constitution of Pakistan, Art. 9---Restrictions on establishment of industrial undertakings---Zoning of area as 'negative' area-- Climate change---Significance---By way of impugned notification establishment of new cement plants, and enlargement and expansion of existing cement plants was not allowed in the "Negative Area" falling within the Districts 'C' (Chakwal) and 'K' (Khushab)---Petitioner-company that owned and ran a cement manufacturing plant in District 'C' challenged the notification on the ground that it was not validly issued and it also infringed its various Fundamental Rights under the Constitution---Held, that the fragility of the Negative Area needed to be examined in the larger context of climate change---Environmental issues initially brought to the courts were local geographical issues, be it air pollution, urban planning, water scarcity, deforestation or noise pollution, but now climate change had a bearing on these issues---Impugned notification, in the current facts of the case, was a climate resilient measure and in step with the National Climate Change Policy, 2012 (Pakistan) and the Constitution---Petition for leave to appeal was dismissed and leave was refused.

Shehla Zia's case PLD 1994 SC 693; Imrana Tiwana's case PLD 2015 Lah. 522 and Asghar Leghari's case PLD 2018 Lah. 255 ref.

(k) Punjab Environmental Protection Act (XXXIV of 1997)---

---Preamble---Constitution of Pakistan, Art. 9 & Preamble---Climate change---'Climate democracy' and 'intergenerational justice'---Concept and scope---Important dimension of climate change was intergenerational justice and the need for climate democracy---Courts had a role to play in reducing the effects of climate change for the present generation and for the generations to come---Through the pen and jurisprudential fiat, the courts needed to decolonize future generations from the wrath of climate change, by upholding climate justice at all times---Post climate change, democracies had to be

redesigned and restructured to become more climate resilient and the fundamental principle of rule of law had to recognize the urgent need to combat climate change---Robust democracies needed to be climate democracies in order to save the world and further generations from being colonized at the hands of climate change---Supreme Court observed that Premabular constitutional value of democracy under the Constitution (of Pakistan) was in effect climate democracy, if we were to actualize the Constitution and the fundamental rights guaranteed under the Constitution for ourselves and our future generations.

Salman Aslam Butt, Advocate Supreme Court for Petitioner.

Ms. Aliya Ejaz, Assistant A.G., Dr. Khurram Shahzad, D.G. EPA, M. Nawaz Manik, Director Law, EPA, M. Younas Zahid, Dy. Director, Fawad Ali, Dy. Director, EPA (Chakwal), Kashid Sajjan, Asstt. Legal, EPA and Rizwan Saqib Bajwa, Manager GTS for Respondents.

Hasan Riaz, Civil Judge-cum-Research Officer at SCRC¹ for Research Assistance.

Date of hearing: 11th February, 2021.

JUDGMENT

SYED MANSOOR ALI SHAH, J.---The case stems from Notification dated 08.03.2018 ("Notification") issued by the Industries, Commerce and Investment Department, Government of the Punjab ("Government"), under sections 3 and 11 of the Punjab Industries (Control on Establishment and Enlargement) Ordinance, 1963 ("Ordinance"), introducing amendments in Notification dated 17.09.2002 to the effect that establishment of new cement plants, and enlargement and expansion of existing cement plants shall not be allowed in the "Negative Area" falling within the Districts Chakwal and Khushab.

2. The petitioner owns and runs a cement manufacturing plant in Kahoon Valley in the Salt Range at Khairpur, District Chakwal and feels wronged of the Notification for the reasons, viz. (i) the Provincial Government and its line Department lacked jurisdiction to issue the Notification and only Local Government under the Punjab Local Government Act, 2013 ("Act") could exercise jurisdiction over matters relating to zoning and classification of land, land use, environment control, water sources and ecological balances; (ii) the respondents without a detailed scientific study about underground water levels acted with undue haste in issuing the Notification; (iii) the petitioner was not given the opportunity of hearing under section 3 of the Ordinance read with Articles 4, 9, 10A, 18 and 25 of the Constitution of the Islamic Republic of Pakistan ("Constitution"); (iv) the petitioner's right to freedom of trade, business and profession under Article 18 of the Constitution was infringed; and (v) the actions of the respondents unreasonably discriminated between the petitioner and other cement manufacturers similarly placed on the basis of materials and information that could not be termed as reasonable or intelligible differentia thereby violating Article 25 of the Constitution.

3. We consider in this case if the Government's decision of issuing the Notification lacks statutory authority or if factual grounding of the Notification compromises its legal validity.

Legality of declaring an area as a "Negative Area" under the Ordinance

4. We first turn to the question whether the Provincial Government can declare an area to be a "Negative Area" under the Ordinance. "Negative Area" under the Notification is where no new cement plant can be set up and no enlargement or enhancement of an existing cement plant can be allowed. The preamble to the Ordinance provides for organized and planned growth of industries in the Province. Organized and planned industrial growth is unquestionably in the public interest and is effectively regulated through section 3 of the Ordinance. No person can establish an industrial undertaking or enlarge any existing industrial undertaking except with the prior permission of the Provincial Government. Generally, such permission can be granted or refused only after extending an opportunity to the applicant to show cause against it. The discretion of the Government to permit the setting up or enlargement of an industrial undertaking under section 3 is structured according to the conditions spelled out in section 3(b) of the Ordinance. Section 3(a) deals with the permission for

establishing or enlarging an industrial undertaking in an area as a greenfield project, which is being examined by the Government for the first time. However, section 3(b) refers to the area where the Government has already satisfied itself on the basis of the information available to it and after making such inquiry as to whether the industrial undertaking to be established or enlarged is prejudicial to national interest, or injurious to health of the residents of the local area in which the industrial undertaking is proposed to be set up or enlarged, or is a source of nuisance for the residents of the local area in which the industrial undertaking is proposed to be set up or enlarged and may declare such an area to be either positive or negative area or zone as the case may be. "Planning" is a comprehensive, coordinated and continuing process that involves identification of future goals, development of plans to achieve those goals, and devising of mechanism to give effect to those plans with a view to promoting the common good of the society.² Zoning of the Province into positive and negative areas is a means towards achieving organized and planned industrial growth without impinging on the social, environmental, ecological, civic and economic interests of the locals. Zoning divides land into distinct geographical areas and imposes restrictions with respect to use of land in each area. These regulatory controls allow or disallow use of land in a particular geographical zone. Therefore, any application requesting permission to establish or enlarge an industrial undertaking under section 3 of the Ordinance in an area that is already marked as a zone (negative or positive) is decided accordingly. The organization and planning under the Ordinance is, therefore, in effect, actualized on the basis of the parameters mentioned under section 3(b) of the Ordinance.

5. Further, the socioeconomic concerns critical for organized and planned development existing in the year 1963³ have since multiplied and become more complex as the population has swelled from approximately 48 million in 1963 to more than 217 million in 2019.⁴ Organized and planned growth in the world today would undoubtedly mean "sustainable development"⁵ and the terms prejudicial to national interest, injurious to health and source of nuisance would naturally encompass the pressing issues of the time i.e., climate change; environmental degradation; food and health safety; air pollution; water pollution; noise pollution; soil erosion; natural disasters; and desertification and flooding having an appreciable impact on public health, food safety, natural resource conservation, environmental protection, social equity, social choice, etc. The authority to regulate land use, introduce zones or negative or positive areas, has been recognized as the police power of the state, asserted for public welfare.⁶ The legislative policy of organized and planned growth, under the Ordinance, also synchronizes well with our constitutional values, set out in the preamble of the Constitution, as well as the Fundamental Rights and the Principles of Policy, in particular, the right to life and dignity,⁷ promotion of social and economic wellbeing of the people⁸ and safeguarding the legitimate interest of backward and depressed classes⁹.

6. We deem it necessary to observe that zoning of areas into positive and negative is not absolute. The ban under the Notification is not etched in stone but may be lifted if the Government is of the view that the valley, in this specific case, stands recharged with water and nature has become resilient to allow sustainable development. Organization and planning of future growth cannot be frozen in time and is never intended to be static. Zoning allows the flexibility needed to respond to change. The choices that govern a particular territorial zoning may not hold good indefinitely. Land use patterns change giving rise to opportunities to revise earlier standards as zoning measures are introduced in public interest.¹⁰ The value of zoning lies in the flexibility by which it is administered to react to new social and economic situations.¹¹ We, therefore, hold that zoning of areas for the purposes of the Ordinance is not absolute but is subject to change provided such change is necessitated by new circumstances. Hence, the prohibition under the Notification not to establish or enlarge an industrial undertaking in a negative area is not absolute.

7. Insofar as the objection of the petitioner that the mandate of zoning of land belongs to the local government is concerned, suffice it to say that the matter involved a trans-district issue which could be

dealt with by the Provincial Government exercising the authority conferred by the Ordinance. Even so, the functions of the local government could not mean to trump the executive authority of the Provincial Government.¹² The Ordinance is a special law compared to the Act and therefore takes preference. Furthermore, under section 4 of the Act, local governments have to function within the provincial framework and are to faithfully observe the federal and provincial laws. And in the performance of their functions, the local governments shall not impede or prejudice the exercise of the executive authority of the Provincial Government. Even otherwise, nothing has been brought on the record that shows that the concerned districts have taken a contrary position or are aggrieved of the Notification.

8. Also, the petitioner claimed that its right to freedom of trade, business and profession guaranteed under Article 18 of the Constitution was infringed and the actions of the respondents unreasonably discriminated between the petitioner and other cement manufacturers. We are, however, of the view that the rights granted under Article 18 of the Constitution are "subject to such qualifications" that have been "prescribed by law". The Ordinance forbids the setting up of any industrial undertaking except by the prior written permission of the Government. Placing an embargo on establishment and expansion of cement plants in the Negative Area to provide for organized and planned growth of industries in the Province in line with the objectives of the Ordinance does not offend Article 18 of the Constitution.¹³ Moving on, the decision to impose a ban on the establishment and expansion of cement plants was not taken to benefit or punish anyone but to ensure the organized and planned growth of industry in the Province in view of the findings of a multidisciplinary study (discussed later) which provided reasonable basis for zoning of project area without violating Article 25 of the Constitution.¹⁴ Factual foundation of the "Negative Area"

9. The next question is whether the Notification was issued in public interest in line with the objectives of the Ordinance or not. In 2016, the Secretary, Mines and Minerals Department informed the Provincial Government that existing cement plants in the Salt Range were causing ecological harm to the area. In this backdrop, the Government decided to inquire into the matter and solicit expert advice. A study was commissioned for determining the suitability of the project area for cement plants comprising Districts of Chakwal, Jhelum, Khushab and Mianwali of Punjab. Messrs. NESPAK and Messrs Sogreah ("Consultants") were engaged for the purpose. The project team included foreign experts such as Cement Plant Expert, Environmental Chemist and Geologist having experience of working in a range of countries in different regions of the world.¹⁵ The methodology of the study reflects that following determinants were identified to be the criteria for suggesting proposals concerning delineation of the negative and positive zones for the establishment of new and expansion of existing cement plants:

- i. sufficiency of cement raw materials;
- ii. sustainable water resources;
- iii. environmental conditions of the project area;
- iv. socio-economic conditions;
- v. transportation infrastructure; and
- vi. agriculture, forest, restricted and sensitive sites.

The Consultants undertook a fairly comprehensive exercise covering a range of factors likely to be impacted by the establishment or expansion of cement plants in the project area. They verified deposits, determined their quality and estimated their resource potential to decide the issue of sufficiency of cement raw materials; carried out water resource study by examining ground and surface water resources; and studied air emissions, ambient noise, and ground, surface and waste water. They also conducted surveys to examine socioeconomic conditions of the area and made estimation of the existing traffic volume through manual classified count surveys, capacity analysis of existing road network, estimation of generated traffic due to new facilities and traffic projections based on relevant socioeconomic indicators and past data. Technical audit of existing cement plants was conducted.

Forest, agricultural and wildlife reserve areas/sanctuaries were taken into consideration. Field visits were conducted and ecological features of the area were studied. A meeting of the Consultants with the representatives of the cement plants and the Government officials was also held.

10. The Consultants found that groundwater table had gone down at an average of 64 feet at various locations, shallow wells (open/dug wells) had been found dried up and, therefore, further installation of new cement plants/expansion of existing cement plants could cause further depletion of groundwater resulting in greater problems for the local people and especially for agriculture. They were of the view that four valleys i.e. Kahoon, Vinhaar, Pail and Padhrar having important scenic and touristic value needed to be protected. Additionally, these valleys contain forest areas, settlements and agriculture lands. It is underlined that total population of the area was recorded as 4.8 million in 2017 and around 1,23,753 in the Negative Area alone. The study showed that any new cement plant or expansion of any existing cement plant would require new road infrastructure or improvement in the capacity of the existing road infrastructure. A negative zone covering an area of 979 sq km (11% of the total area) with an embargo on establishment of new and expansion of existing cement plants was thus delineated out of a total of 8,872 sq km. It was also proposed that demarcation of negative zones be reviewed after every ten years on the basis of technical assessment.

11. The Provincial Cabinet in view of the said recommendations of the Consultants took a number of decisions including declaration of "Negative Area" comprising 979 sq km of land in the Salt Range out of a total area of 8,872 sq km where establishment of new and expansion of existing cement plants was completely banned. It is underlined that the Positive Area adjoins the Negative Area and can be accessed by the petitioner for future development subject to the regulatory approvals under the law. It was also decided that the existing cement plants falling within the Negative Area would be allowed to operate only if they were fully compliant with all legal, technical and environmental standards prescribed by the Government and after a final approval was given by the Government to this effect. The Notification was thus issued and establishment of new and expansion of existing cement plants was banned in the Negative Area. The Government concluded that permitting the establishment of new and expansion of existing cement plants would be prejudicial to public interest.

12. It is hardly a secret that water situation in the project area is far from satisfactory. In November 2017, this Court had taken notice of the reports of drying up of the fabled Katas Raj Temple Pond. Cement companies situated in the vicinity of the pond were found pumping huge quantities of water free of charge and without having any regard for the environmental impact of such unbridled extraction on the aquifer as well as surrounding areas.¹⁶ This Court in Katas Raj case had observed that the issue of scarcity of water in the area was becoming acute adversely affecting the environment and lives of the people living nearby.¹⁷ The cement companies were directed to switch to alternative sources of water and bring their dependence on groundwater to zero within six months.¹⁸ The cement plants, subsequently, claimed to have brought the use of groundwater to zero though the feeding channels of Katas Raj Temple Pond could not become functional and, therefore, the Director General ("DG"), Environmental Protection Agency ("EPA") Punjab was directed to constitute a "Team of Experts" from all concerned departments for technical survey of the area to discover the reasons behind the issue.¹⁹ The "Interim Report" dated 11.06.2020 submitted by the DG, EPA Punjab did not convey a satisfactory picture: "14 % (of groundwater in the valley) is abstracted by cement industry"; "Katas Raj Temple' (sic) pond is located downhill whereas the Bestway Cement Factory was installed at (sic) uphill 03 km away from the pond, thus the latter intervention may influence the groundwater flow path recharging holy pond"; and "over abstraction appears so far to be the main cause of drying out of pond." Here, we are reminded of the Consultants' recommendation that use of existing tube wells within the boundary of existing cement plants, even after shifting to alternative sustainable water sources, must be monitored to ensure that cement plants are not abstracting groundwater.

13. The Assistant Director (Environment) Chakwal during the pendency of this case carried out site inspection of the petitioner's cement plant on 09.02.2021. His report reveals that there are also other issues besides water. He reported that blasting and quarrying of raw materials caused dust pollution in the locality causing environmental damage; quarrying also threatened the local ecology of biodiversity rich area of Kallar Kahar; deforestation and erosion resulted from quarrying; heavy transport and machinery used for transporting raw material affected the locals of the area negatively; quarrying sites deteriorated the aesthetic appeal of the area; and air emissions from the cement industry was a cause of air pollution in the area.

14. The only objection raised by the petitioner to the report of the Consultants relates to the finding about underground water levels. However, the petitioner loses sight of the fact that sustainability of water resources was not the sole factor leading to designation of the Negative Area. Rather, the Consultants carried out a multidisciplinary study of the project area to determine suitability of land for establishment and expansion of cement plants. Fixated on the issue of groundwater levels, the petitioner engaged private consultants "to prepare a factual report on the status of ground water in and around the plant area." Without going into the qualification of the consultants hired by the petitioner and the scope of the inquiry undertaken by them, we believe, it is not our job to referee battles among experts.²⁰ The Government has discretion to rely on reasonable opinions of its own qualified experts in case of conflicting specialist views.²¹ Another aspect is the integration of science in planning and regulation. The courts while reviewing scientific and technical determinations generally exhibit deference to institutional competence because of the specialized nature of the subject matter.²² There is a risk that the courts will unravel layers of careful scientific work as a result of their combined ignorance and judicial second-guessing while reviewing science-based regulatory decisions.²³ However, scientific complexity does not provide excuse to evade judicial scrutiny as it needs to be ensured that Government does not transgress its mandate or does not mangle scientific results to produce certain outcomes.²⁴ Judicial oversight of specialized administrative decision-making is necessary to obviate the possibility of capture and incompetence.²⁵ Accordingly, we keep ourselves restricted to the rationality of the Government's decision.²⁶

15. It was vehemently argued by the learned counsel for the petitioner, that the petitioner company proposes to expand the existing cement plant by installing a new "zero water" technology cement plant. However, there is no evidence brought on the record to establish the claim that the new cement plant technology is 'zero-water' or even the fact that the petitioner is currently manufacturing cement without any use of water. Even the consultants engaged by the petitioner did not say that cement plants could be run without using water. On the contrary, according to the position taken by the petitioner and confirmed by the DG, EPA, Punjab, the petitioner is currently using six rainwater harvesting ponds and two water tanks to save water for use in the cement plant. This act of building storage tanks and ponds shows that water is essential for the running of the cement plant, not to mention that development of the ponds and storage tanks further restricts the recharge and replenishment rate of the aquifer which is to sustain the local habitat including nature, population, subsistence agriculture and help in regaining water supply levels for Katas Raj Temple Pond. We also notice that building such ponds and storage tanks (a water management project) required an Initial Environmental Examination (IEE)/Environment Impact Assessment (EIA), which does not appear to have been done, casting doubts on legal sustainability of these ponds and storage tanks in the Negative Area. Recourse to alternative source of water by the petitioner company clearly establishes that use of water is an indispensable requirement for running a cement plant. Additionally, the petitioner claimed that it was not given the opportunity of hearing before the issuance of the Notification. We, however, see that the Consultants had arranged a Stakeholders Consultation Meeting with cement companies. Three officials of the petitioner participated in the said meeting and their names and signatures are visible in the report. Besides, we need to look beyond limestone, clay and other minerals to appreciate the value of the stretch of land,

called the Salt Range, whose charm has captivated pilgrims, travelers and emperors since olden days. The picturesque region rich in biodiversity, and historical and sociocultural heritage is a national asset of timeless magnificence.

Precautionary Principle, In Dubio Pro Natura and Environmental Legal Personhood

16. The facts of the case brought before us through various technical reports of the Government and its consultants (referred to above) show that there are serious threats to environment in the Negative Area, especially to the underground water aquifer that needs to be first recharged before any sustainable development in the area can take place. Negative area in other words means an environmentally fragile area, which is a vulnerable natural habitat and needs care and protection, till it recovers, if at all. Enlargement of an existing cement plant in a negative area attracts the well-established principle of international environmental law called the Precautionary Principle, reflected in Principle 10 of the Rio Declaration, 1992. The principle provides; "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." Another emerging environmental principle declared as Principle 5 of the IUCN World Declaration on the Environmental Rule of Law (2016) is in dubio pro natura i.e. "in cases of doubt, all matters before courts, administrative agencies, and other decision-makers shall be resolved in a way most likely to favour the protection and conservation of the environment, with preference to be given to alternatives that are least harmful to the environment. Actions shall not be undertaken when their potential adverse impacts on the environment are disproportionate or excessive in relation to the benefits derived therefrom." In the facts of the case, the Provincial Government was obliged to take a precautionary approach and act in-line with the principle of in dubio pro natura, till, inter alia, a detailed hydrogeological study assessing the potential of groundwater resources for industrial purposes of the project area is carried out. This approach is also constitutionally compliant as the courts are to protect the fundamental rights of the public and in this case right to life, sustainability and dignity of the community surrounding the project remains paramount till such time that the Government is of the view that the project has no adverse environmental effects. Also, the environment needs to be protected in its own right. There is more to protecting nature than a human centered rights regime. We see elements of personhood have now been ascribed to nature by legislatures and courts around the world.²⁷ The approach of personifying the environment in order to protect and preserve nature and its objects is one of the latest evolutions in environmental law.²⁸ Man and his environment each need to compromise for the better of both and this peaceful co-existence requires that the law treats environmental objects as holders of legal rights.²⁹

Water Justice

17. According to our National Climate Change Policy, 2012 water resources are inextricably linked with climate; this is why the projected climate change has such serious implications for Pakistan's water resources. Freshwater resources in Pakistan are based on snow and glacier-melt and monsoon rains, both highly sensitive to climate change. This will further exacerbate the already difficult situation of a water-stressed country facing demand increases due to population growth and increasing economic activity. To address the impact of climate change on water resources and to enhance water security, the Government of Pakistan has proposed Integrated Water Resource Management to provide regulatory frameworks, water licensing, slow action dams, artificial recharge especially for threatened aquifers, adoption of integrated water resource management concepts, and ensuring rational ground water exploitation by avoiding excessive pumping. Agriculture is central to human survival and is probably the human enterprise most vulnerable to climate change. The hydrological cycle is similarly likely to be influenced by global warming, necessitating the agriculture and livestock sectors, particularly in rain-fed areas, to adapt to climate change. The World Water Forum, laying down the concept of water justice, declared³⁰ that the State should exercise stewardship over all water resources, and protect them, in conjunction with their associated ecological functions, for the benefit of current

and future generations, and the Earth community of life.³¹ Because of the close interlinkages between land and water and the ecological functions of water resources, any person with a right or interest to use water resources or land has a duty to maintain the ecological functions and integrity of water resources and related ecosystems.³² The precautionary principle should be applied in the resolution of water-related disputes. Notwithstanding scientific uncertainty or complexity regarding the existence or extent of risks of serious or irreversible harm to water, human health or the environment, judges should uphold or order the taking of the necessary protective measures having regard to the best available scientific evidence.³³ Consistent with the principle in *dubio pro natura*, in case of uncertainty, water and environmental controversies before the courts should be resolved, and the applicable laws interpreted, in a way most likely to protect and conserve water resources and related ecosystems.³⁴ In adjudicating water and water-related cases, judges should be mindful of the essential and inseparable connection that water has with the environment and land uses, and should avoid adjudicating those cases in isolation or as merely a sectoral matter concerning only water.³⁵ Water justice requires appreciation that there are no easy, simple or singular solutions to the water crisis, and that water problems cannot be resolved through technical solutions alone but require broader recognition that they are inherently ecological, political and social issues simultaneously.³⁶

Climate Change and Climate Justice

18. The fragility of the Negative Area also needs to be examined in the larger context of climate change. The environmental issues initially brought to our courts were local geographical issues, be it air pollution, urban planning, water scarcity, deforestation or noise pollution. But now climate change has a bearing on these issues.³⁷ One of the serious climate change threats to Pakistan is the rising temperatures resulting in enhanced heat and water-stressed conditions, particularly in arid and semi-arid regions, leading to reduced agricultural productivity.³⁸ Notably, the Salt Range has an arid climate characterized by lack of water.³⁹ According to our National Climate Change Policy, 2012 for Pakistan to continue on a development path, the more immediate and pressing task is to prepare itself for adaptation to climate change. The country is bearing huge socioeconomic costs of environmental degradation, it is globally ranked in the top ten countries most affected by climate change in the past 20 years and has lost 0.53 percent per unit GDP, suffered economic losses worth US\$ 3792.52 million and witnessed 152 extreme weather events from 1999 to 2018.⁴⁰ Only by devising and implementing appropriate adaptation measures will it be possible to ensure water, food and energy security for the country. The goal of the Policy is to ensure that climate change is mainstreamed in the economically and socially vulnerable sectors of the economy and to steer Pakistan towards climate resilient development. The Notification, in the current facts of the case, is a climate resilient measure and in step with the National Climate Change Policy and the Constitution.

19. Another important dimension of climate change is intergenerational justice and the need for climate democracy. The tragedy is that tomorrow's generations aren't here to challenge this pillaging of their inheritance. The great silent majority of future generations is rendered powerless and needs a voice. This Court should be mindful that its decisions also adjudicate upon the rights of the future generations of this country. It is important to question ourselves; how will the future generations look back on us and what legacy we leave for them?⁴¹ This Court and the Courts around the globe have a role to play in reducing the effects of climate change for our generation and for the generations to come. Through our pen and jurisprudential fiat, we need to decolonize our future generations from the wrath of climate change, by upholding climate justice at all times. Democracy, anywhere in the world is pillared on the rule of law, which substantially means rights based rule of law rather than rule based; which guarantees fundamental values of morality, justice, and human rights, with a proper balance between these and other needs of the society.⁴² Post climate change, democracies have to be redesigned and restructured to become more climate resilient and the fundamental principle of rule of law has to recognize the urgent need to combat climate change. Robust democracies need to be climate

democracies in order to save the world and our further generations from being colonized at the hands of climate change. The preambular constitutional value of democracy under our Constitution is in effect climate democracy, if we wish to actualize our Constitution and the fundamental rights guaranteed under the Constitution for ourselves and our future generations. Janine Benyus⁴³ suggests we learn from nature's 3.8 billion years of evolution. How is it that other species have learned to survive and thrive for 10,000 generations or more? Well, it's by taking care of the place that would take care of their offspring, by living within the ecosystem in which they are embedded, by knowing not to foul the nest. We must restore and repair and care for the planetary home that will take care of our offspring. For our children, and our children's children, and all those yet to come, we must love our rivers and mountains and reconnect with the long and life-giving cycles of nature.⁴⁴ To us there is no conflict between environmental protection and development because our answer would be sustainable development. Sustainable development means development that meets the needs of the present generation without compromising the ability of future generations to meet their needs⁴⁵ and it is in step with our constitutional values of social and economic justice.

20. As a result, all contentions raised by the petitioner are rejected. We hold that the Notification dated 08.03.2018 is in accordance with the provisions of the Ordinance and negative area can be planned and designed banning industrial activity within its bounds. The Petitioner company is not allowed to enlarge or enhance the capacity of its existing cement plant till such time that the Negative Area subsists. In these circumstances, we uphold the Notification. The High Court has rightly refrained from interfering into the matter. Consequently, the leave is refused and the petition is dismissed.

MWA/D-7/SC Petition dismissed