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National Legislations Addressing Social & Cultural Integration

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Introduction

Social and cultural participation sets enormous challenges in societies at a period when distinct minority communities feel fractured, isolated and demonised from the rest of society. Smaller communities may be close knit but are often unduly sensitive to how they are perceived and understood by the mainstream. Migration and asylum, citizenship and religion, ethnicity and culture are strikingly familiar points of conflict that challenge even the most well-ordered society. Climate change often leads to climate injustice and inequalities flow as economically marginalised and poorer societies have less responsibility for creating environmental problems. The wealthy are more likely to use more energy and emit more carbon when compared to the poor.[1] Within the uncertainties and controversies of climate change lie many conflicts and disagreements that challenge existing orthodoxy and responses to legal conflicts.[2] Poverty, education and wealth also define inequalities and social exclusion. It is hard to believe that much progress has been made when the social inequalities are still so severe. Even within self-contained and relatively cohesive communities there are subtle and often hidden ways of excluding, ostracising and demonising. The main question addressed in this paper is whether national legislation has a role in addressing social and cultural participation and reaching social exclusion? What is the role of law and are there examples that define success as well as failure? Law may provide a means of social ordering and through institutional design and focus reach into the depths of our culture. Law also defines the structure of government and the means of governing. Distributing power amongst social groups, institutions and society articulates the boundaries in relationships as well as the allocation of resources. Law may also facilitate social ordering and provide accountability and transparency that may resolve disputes and settle social differences[3]. Legal doctrines and approaches are often more flexible than it first may seem and may encourage flexibility and incremental developments to address challenges and changing social, economic and political developments. Legal perspectives and methodologies,[4] though legislation may also create responses and reactions that may encourage better policy making and settling disputes – even though the medium of law may constrict and inhibit outcomes – may also produce a positive reaction through adjudication and mediation. It is acknowledged that law is only one part of a social and political conversation but it may in the end deliver more than is expected even though there are times it may seem to offer very little when legislation appears to fail or exposes weaknesses in enforcement.[5]

As we shall see in this paper, national legislation has a major role in the development of social justice as a major concern of government. This is particular so when there is a tacit assumption accepted in many counties that market forces are insufficient on their own to result in sufficient social change.[6] If the UK is taken as an example, national legislation may take a number of forms. From the nineteenth century social change and economic benefits to the poor and dispossessed came through different forms of state intervention, including legislation on public health, clean air, factory inspectorates and employment law. Later in the 1960s, legislation sought to prohibit a particular activity or practice under Anti Discriminatory legislation such as the Race Relations Act 1976. More recently going beyond anti-discriminatory laws, national legislation has addressed different forms of equality rights such as the Equality Act 2010. Equality law became a way to re-organise various status relationships such as the employment contract to ensure compliance with principles of fairness and justice.

It is clear that in tracing the creation of appropriate levels of compliance, national legislation to be effective has to engage with two particular approaches that underpin equal status in the law:[7] the individual justice approach and a group justice model.[8] In the case of an individual justice model, the aim is to secure the reduction in discrimination by eliminating from decision-makers illegitimate considerations such as race or religion. This approach certainly creates notions of merit and fairness but it is limited to individual cases rather than a cohort or group. It suffers from enforcement problems and may be insufficient to change institutions or their culture. The group justice approach seeks to remedy such shortcomings through the empowerment of dis-advantaged groups and the adoption of strategic approaches to enforcement.

It is clear that both approaches have been supplemented by the adoption of equality norms extraterritorially as well as what McCrudden[9] refers to as “mainstreaming” – modes of equality legislation that go beyond anti-discriminatory legislation to equality rights. He gives various examples such as in Northern Ireland under section

75 of the Northern Ireland Act 1998, that introduced devolution, also stipulates that every public authority has the need to "promote equality of opportunity between certain individuals and groups". The categories are widely drawn to include religious belief, political opinion, racial group, age, marital status or sexual orientation between men and women. All forms of national legislation such as anti-discrimination legislation, human rights and equality laws may provide the means to address social, racial and religious discrimination. Beyond targeting such problems is it possible to achieve a more participative and integrated society?

Our starting point is to define terms and set the main focus of the paper in terms of achieving a participative society. An integrated society is aspirational and rests on ideals of diversity, to diminish extremism and intolerance as well as setting values for society as a whole. Law in all its applications and methods may have a part to play but it may fail to reach the underlying factors that limit cultural participation and contribute to a cohesive society.[10] Is it intrinsically impossible to address cultural problems through legal mechanisms?

The paper looks at the role of different forms of national legislation in setting common standards for social and economic integration through an analysis of historical developments such as the public health legislation of the nineteenth century. This is followed by discussion of the different forms of anti-discrimination legislation leading to the Equality Act 2010.[11] Finally there are some conclusions about the value and role of law, particularly the opportunities for social change through embracing the potential for legislation to encourage equal status law across a wide range of social, economic and political problems.

A Participative Society – Cultural and legislative Challenges

The case for advancing participation is the belief that a country is stronger and more vibrant when each part contributes for the overall benefit of society. The common good prevails over the discordant voices of discrimination and sectarian conflict. Communities are stronger and more vibrant when contributions come from neighbourhoods, families and individuals. Private and voluntary sectors are each able to contribute to crossing different sectors of society, which may result in a more coherent society. Tackling extremism and violence is part of the challenge as well as all forms of racism and bigotry. Examples abound of divided societies where it is almost impossible to believe that there can be much hope of social cohesion. Brexit is indicative of the problem but it also systemic of the order in society and the feeling of isolation and lack of participation in government. There are serious concerns about increases in migration, and threats to employment are linked to fears about immigrants and immigration. Tracing the historical pathway upon which some progress has been made is useful, as it sets the key factors that contribute to integration. These are as follows: tackling intolerance and extremism; providing the mechanism for social mobility, participation and responsibility while addressing common ground that may foster integration.[12]

There are many examples where the challenge is to address the underlying economics of the social exclusion and discrimination. Social and cultural participation is particularly demanding when it comes to the poor and their needs. Even in the UK with a National Health Services a profile of users and their medical health highlights a number of trends. A recent *Institute for Fiscal Studies Review,* a well-respected economic think-tank in the UK, noted that:

But to the extent that ill health drives both health and socio-economic factors, particularly employment, earnings and income, it is no surprise that the poor use more health care.[13]

The social inequalities in society are replicated in the use made of the health service. This has given rise to a wide-ranging debate as to the best funding model for health care. Globally, the funding of expensive health care has raised issues about social inclusion amongst the less rich nations. Initial impressions are deceptive. The UK's National Health Service (NHS) has been set to receive increased funds between 2015-16 and 2019-2020 but there are many cost increases that largely offset the increases. The amount spent on health care is below the average of many European countries. In fact the Department of Health spending has decreased considerably below the spending needed to support upward spending demands. The *Institute for Fiscal Studies* also predicts that there is a real-terms cut to non NHS Department of Health Spending by 20.9%. During the same financial period there are major cuts in local authority spending on social care. The IFS estimated that there has been a real terms cut of 1.0% between 2009-10 and 2015-16. The impact for adults over 65 is greater than younger members of society. In the UK it is likely to be the case that the demands on health and NHS services will continue to rise and occupy a large proportion of national income.[14] This sets the parameters of discussion in terms of poverty, and the economic necessity to take positive action. Such contemporary issues have historical roots that are integral to the challenges of today. Despite the claim of a universal health service for everyone, the reality is somewhat different with many procedures rationed depending on the area of the country such services are being contracted for.

In August 2011 in a number of English towns and cities, civil disturbances highlighted the problem of deep-seated anxieties. Such unrest may be exploited and used for political purposes that challenge established

thinking or orthodox analysis. Institutions often struggle to find a solution and may even contribute to the problem by making it worse. The Brexit decision to leave the EU leaves many questions unanswered about the future but also leaves a deeply divided society that will be difficult and challenging to integrate in a harmonious way. The UK has a long history of having to face challenges posed by strong nationalist beliefs in Ireland, Scotland and Wales with dissatisfaction over the imposition of laws that are not accepted. Discrimination on grounds of religion and politics dominated N. Ireland during the 1970s and resentment remains strong amongst many sections of society. In historical terms it may be that participation poses problems beyond the normal range of issues that are often contested, involving contract, conveyancing, family law and criminal law. In areas where conflicts arise – religion, poverty and ethnicity – law is limited in what role it may play and how.[15] Mainstreaming equal status laws has some powerful effects. In the example of Northern Ireland, legal protections of the minority secured peace and the basis for a new constitutional settlement that engaged with how government should be conducted under an administration composed of representatives from the unionist and nationalist traditions. This went beyond the traditional anti-discrimination approach in favour of equality arrangements that extend into positive obligations and duties. A Human Rights Commission with related protections was a major part of the Anglo-Irish Agreement and the outcome of the Easter Friday Agreement. In South Africa, for example, the ending of one party dominance and the emergence of Nelson Mandela, made it possible under the new South African Constitution for black rights to be protected in law.[16] Legal systems communicate with each other in many ways including the drafting of national legislation informed by rule of law principles and values.[17] Examples of states with newly engineered constitutions are South Africa (1996), Namibia (1990), Angola (1992), Mozambique (1990), Uganda (1995) and Swaziland (2006). There are also examples in the case of Zimbabwe (1976) and Cameroon (1972). These constitutions provide modern forms of constitutional protections. One of the critical aspects of the "remodelling" of Africa's constitutional arrangements is the role of an independent judiciary[18] and gives rise to considerable debate about the role of the judiciary within the interpretation of national legislation. The influence of law is not easily assessed and often overlooked in the rush to judgement about the values of society and their application. There are also regulatory approaches to social and economic problems such as the Modern Slavery Act 2015 that addresses the challenges of human trafficking. The Act sets the parameters for trafficking as a crime as well as addressing the victims of trafficking by affording them legal protection. Politicians often speak of greater control over immigration as a means of ensuring some form of influence over the size and scale of immigrant communities. Whatever the political rhetoric, the reality is that there are some communities that resist or are unwilling to participate.[19]

The Role of National Legislation in Setting and Delivering Common Standards for Social and Economic Participation

The history of the United Kingdom is also a history of immigration and change. Empire and its loss; economic power, rekindled and re-defined, has challenged the most sophisticated attempts to create social cohesion. Class, religious and ethnic differences remain and in many instances have become entrenched. The myth of self-contained indigenous peoples in small villages is not supported by historical research. Agrarian society differed substantially from those in urban settings. There are emerging principles of tolerance and fairness as well as equality and respect irrespective of social background, ethnic origin, religion, or gender.[20]

The UK's long-standing commitment to the rule of law has been a significant influence. The rule of law has not been easy to define at any one time but it has been interpreted to refer to general principles of justice.[21] In constitutional theory the rule of law upholds certain principles such as an independent judiciary and principles of fairness and proportionality and is linked to equality before the law. Law refers to the moral order of society or more formally the law of the land. St Paul recognised the need not to discriminate in widely drawn terms of equality and fairness before the law.

English legal history[22] is littered with examples of disabilities against many groups including Roman Catholics, Jews and Dissenters. Gypsies, in particular, were also the victim of discrimination and bad practice. It is hard if not impossible to reconcile with the rule of law and fairness. Despite legislative attempts to address the social conditions and requirements of various travelling people, there remain major obstacles to their participation in society.[23] It is clear that Britain has had to offset the theory of its laws with the realities of legal practice and the limitations of applying the law. Are there lessons from this analysis? It is clear that law and culture are not always *ad idem*. Reforming the former may not change the latter. Law may have an educative function but it terms of transformation it may take many generations.

Some examples of how national legislation comes about are instructive of the processes of law-making as well as revealing the necessity for sound policymaking. One early example stands out. In English law slavery was not abolished until 1772. This came about through Parliamentary pressure by various lobbying groups and the views of some judges, but judicial opinion was not in itself sufficient to have the law clarified. Judges could not define the law on their own or abolish slavery without the authority of Parliament. Parliament had to intervene. Legislation was passed and eventually given effect. Sadly slavery was not fully abolished in all its forms, rather

it re-appeared in a more sophisticated form of human trafficking. Disappointingly law and legal solutions did not deliver all that was promised.

Historically it is hard to understand that a society that espouses the rule of law and due process should have been so reluctant and slow to address all forms of discrimination and unfairness. One suggestion is that England, as an island, was often both connected to the world but also surprisingly disconnected from Europe and, at times, the main influences of rights and liberties which it associated with the revolutionary France.[24] There is also an undue fascination with the history of Empire – its cruelties and subjugation. Attitudes to the EU and Europe have been ambiguous for many generations and often have been contradictory and self-deceiving. In contrast to the English common law tradition of judge-made law, countries under the civilian jurisdiction have codified law and the adoption of a positive legal tradition. Even here there were a great deal of pragmatic and often unprincipled legal doctrines that were rarely designed to protect and enhance equality. Even occasionally legal doctrines were linked to common moral and political preoccupations of the time but were too bound up with the protection of property rights, the maintenance of status and the values of market-led tradition that rarely brought Government intervention.

Britain struggled to find a common intellectual framework on which to set the boundaries for law and policy. Setting the parameters of the moral and legal order was a work in progress.[25] Major influences from the eighteenth century onwards that came to dominate policy approaches to legislation may be found in the writings of John Austin (1790-1859), Jeremy Bentham (1748-1832), Albert Venn Dicey (1835-1922), Leslie Stephens (1832- 1904) and J.S. Mill (1906-1873). Britain went through several periods of individualism up to 1870 and thereafter collectivism. Mill's monumental work *On Liberty* argued for the link between truth and liberty to become a firm objective of law and sound policymaking. Mill's influence permeated many aspects of public life[26] including the general socio-political framework addressing the nature and limits of power. Progression to a civilised society, in Mill's view, required addressing the legitimate exercise of power over the individual. Retraining the limits of bad conduct was an essential pre-requisite of creating a moral agency through the functions of law. Recognising the importance of law also acknowledged the role of the state in intervening in the lives of ordinary people. Setting limits on the tyranny of the majority is as important as setting limits on authoritarian power. Underlying the moral issues of law and liberty was the work of John Austin, whose analytical jurisprudence helped determine a methodology in legal reasoning that addressed the substantive law. Partly influenced by Bentham, Austin also drew on the work of Kant and Hugo.[27] Austin's scientific analysis questioned empirical facts, logical premises and the abstraction of legal materials into a systematic approach to seeing law as a series of rules that are capable of being addressed through legislation. Mill's construction of civil society, combined with Austin's analytical jurisprudence created an opportunity for national legislation on the understanding that many aspects of ordinary society might be improved. The result was that law was used as a tool to improve public health, including quality of life and poverty. Working conditions, the terms of employment, the quality of sanitation and the standards of good housing could be and were improved through national legislation.

How was national legislation capable of achieving such wide-ranging objectives? Social and economic progress resulted in a number of inspired legislative interventions and examples. In 1832 Michael Thomas Sadler's *Select Committee Report on the Labour of Children in Factories* and Edwin Chadwick's *Report on Sanitary Conditions of the Labouring Population* (1842) addressed serious social and societal problems in an innovative way. What had been characterised as "polite and commercial" moved to social responsibility and order. Moral change took time and social revolution especially industrialisation usually preceded it. Social welfare policy was slow in developing. A raft of other examples followed, such as the Regulation of Working Hours in 1833, the New Poor law of 1834 and the regulation of emigrant passenger traffic in 1835 were all steps towards recognition of social progress. Systemizing English law came from a number of influences. Blackstone[28] favoured adapting continental ideas and rights into common law practices. He reasoned that English law was "a science which distinguished the criteria of right and wrong". Bentham offered codification and principle-based analysis from general acceptance of a utilitarian sociology. Prevailing *laissez faire* economics were gradually remodelled under the influence of political economists. J.S. Mill's influential *Principles of Political Economy*, first published in 1848, brought practical aspirations while analytic jurisprudence offered law reform as a means of addressing social and economic problems. The methodology at work was contested. Originally classical political economy favoured abstract, deductive and universal rules that conveyed respect for objectivity and conserving what was achieved. This form of *a priori* inquiry formed a logical process of reasoning that reached conclusions from the premise that was known or assumed beforehand – theories based on assumptions had to conform to objective facts. Facts found through statistical data helped verify conclusions reached by abstract argument.

The sociological methodology of Augustus Comte[29] (1798-1857) whose influence was later absorbed in Mill's writing and became popularised by Frederic Harrison[30] further advanced the cause of a realistic analysis. This offered an alternative to abstract reasoning that took account of changing and often unpredictable

outcomes. It also favoured a more subjective judgement.[31] German legal writers, such as Gustave von Hugo[32] (1764-1844), F.K. von Savigny[33] (1779-1861), and K.F. Eichorn[34] (1781-1854) varied in their adaptation of such ideas but were prominent figures for a broader social or national economics that would address the needs of the nation. They advanced the cause of understanding the general social environment as a means to achieve just laws in the evolution of ideas. Collective rather than individualist in outlook they offered an alternative to British classical political economic thinking. Rather than seeing matters as “static” they favoured greater pragmatism based on a rejection of the abstract method of reasoning in favour of a more realistic approach to the evolving nature of social problems. Maine’s[35] influence was also important in terms of looking at how nature and law evolved and in that evolution how some relative standard for law might emerge. The 18th and 19th centuries were remarkable periods for scientific discovery[36] and statistical evaluation. The work of statistical study informed the science that often set the foundations of public health and environmental safety through the development of pollution controls. Science and law shared many similarities in their methodology, reliance on facts, presentation of evidence and the evaluation of standards. Even so, the science that contributed to regulating the environment was permeated by Victorian attitudes to safety, often based on trial and error. The building and construction techniques used for the great engineering projects of the 19th century are prime examples of this.[37] Scientific investigation was often reactive and scientific knowledge tended to grow from the latest findings arising from mistakes. In Victorian Britain science drove forward technological and industrial change as it still does today in new, and perhaps unexpected, ways.[38] Through the nineteenth and twentieth centuries science has provided the data and evidence necessary for evaluating social and economic phenomena. It has also created the opportunity for lawyers to adopt principles and procedures, and set standards that form the cornerstone of environmental law. In the last century the challenges that faced us in protecting the environment and human health have meant that environmental lawyers and scientists have had to adopt novel analytical and empirical strategies. The 20th century sciences of ecology and environmental science, of ecotoxicology and toxicology, of modelling and predicting long-term outcomes sometimes on global scales are surrounded by scientific uncertainty. This uncertainty has become endemic to environmental law and it has become imperative for science and law to work through dialogue and collaboration. Policy and law can be intertwined to address definable problems through legislative solution worked up over time.[39]

One legislative example is in protecting the environment. National legislation was highly dependent on evidence-based policy making. In the eighteenth century naturalists and collectors abounded, and catalogued and classified the biological and geological world at home and overseas.[40] Some of the greatest observations by naturalists such as Gilbert White[41] were made then and it is possible to trace the mapping of ‘nature’, the landscape and attempts to influence its future through conservation to this period.[42] In fact the beginning of the conservation movement dates from the eighteenth century and the influence Malthus.[43] The nineteenth century, however, saw the growth of the conservation movement reflected in a proliferation of societies dedicated to lobbying for the protection of buildings, birds and the protection of nature, often based on the observations of naturalists. Notable among these societies were the Selborne Society for the Protection of Birds, Plants and Pleasant Places (1885) and the Commons Preservation Society (1865), which was a forerunner of the National Trust for Places of Historic Interest or Natural Beauty.[44] Wildlife protection legislation was championed by these societies and by individual naturalists. The first success came in the Sea Birds Preservation Act 1869 and was followed by others setting out the foundation for nature conservation and wildlife protection.

The eighteenth century perception of the environment grew in other ways that are still of notable importance today. Statistics began to provide an important methodology that allowed collection and analysis of scientific data[45] and provided a technique to quantify the economic, social, agricultural and even environmental impact of industrialization and mechanization. In fact two important influences, those of William Petty and John Graunt, are apparent in this context from an earlier era. William Petty (1623-87) attributed to science the technical skills of “political arithmetic”, and fostered the first empirical research. The mathematical analysis of economic and social problems was favoured by John Graunt (1620-74). Collectively known as “the science of political arithmetic”, their work helped apply a generation of natural laws to the social sciences. There were three elements to “political arithmetic”: first the collection of statistical data; second the application of statistical or empirical research to a particular problem, and, third, the development of natural laws that might predict outcomes from known data. The publication of the works of William Petty (1623-87) and John Graunt[46] (1620-74) in 1662 marked a new approach to the study of society.[47] Together Petty and Graunt provided the statistical facts that allowed the scientific identification and definition of problems, transforming understanding and enabling law to form solutions. Eighteenth century “political arithmetic” helped shape the way environmental laws were directed.

The revolution that transformed England from an agrarian to an industrial society continued into the next century[48] and the importance of statistical studies increased and substantially influenced law reform. There

were statistical studies on smallpox,[49] insanity and the causes of poverty. Local statistical surveys identified inadequate poor law provisions and Boards of Public Health were formed to fill the gaps. Water and sanitation systems proved inadequate in the face of the growth in new towns and cities and led to a variety of health problems including the 1831-2 cholera outbreak, which claimed 32,000 lives.[50] The poor sanitary conditions were identified in the 1842 Parliamentary Report on the *Sanitary Condition of the Labouring Population of Great Britain*, which perhaps marks the beginning of environmental legislation. The House of Commons became a focal point for the collection of statistics on societal concerns from poverty and crime to unemployment. Numerous statistical societies formed during the nineteenth century, including the British Association for the Advancement of Science (1833); the London Statistical Society,[51] renamed the Royal Statistical Society (1834); the Manchester Statistical Society (1833); the Statistical Society of Ulster that was established as part of the Belfast Natural History and Philosophical Society (1838); and the Social Inquiry and Statistical Society of Ireland, which began life as the Dublin Statistical Society (1847).[52] The statistical movement, as it became known, was both national and international, and multidisciplinary in character. Different disciplines, including science, law, history, philosophy, economics and statistics, combined to use statistical data for the study of social, economic and legal issues and alleviate social problems by lobbying for law reform.

The major intellectual influences behind the rise in environmentalism, at this time, were Bentham and Edwin Chadwick's concerns about public health. "Moral statistics" was at the forefront of the link between science and social science and was applied to education, crime and religion. Moralistic and environmentalist observations that sanitary reform and an improvement in living conditions would produce a more stable and thrifty working class were expounded, although not originated, by Chadwick.[53] The miasma theory is also a notable example of the influence of 'scientific' ideas on environmental law. The theory advocated the view, in fact not supported by the statistical data of the time and subsequently rejected, that the removal of all putrefaction would remove disease.[54] A series of Nuisance Removal Acts and the Public Health Act 1848 were introduced on the basis of this theory. Powers were given to local authorities to construct sewers, licence slaughterhouses and lodgings, and remove nuisances. The General Board of Health, a central government department, received default powers to regulate and enforce local authority powers and duties. Scientific theories and statistical study were, then, powerful influences on law reform and important catalysts for major legislative change. There are numerous further examples of this influence including the Sewage Utilisation Act 1865 and the Sanitary Act 1866, which gave local authorities additional powers to provide and maintain drains and sewers and established special drainage districts. The Public Health Act 1872 divided the country into sanitary areas and gave local authority enforcement powers. The Public Health Act 1875 consolidated the law on all aspects of public health[55] and formed the foundation of the modern law on public health. There were major changes in housing law as well, with local authorities given powers to demolish unfit housing and erect buildings for working class tenants.[56] The Housing, Town and Country Planning etc. Act 1876 created in embryo the development of a system of town and country planning[57] in Britain and came from concern that the problems of unregulated housing and overcrowding risked outbreaks of typhoid and cholera. Similarly, environmental health considerations became a major focus of legislation for food standards including the manufacture, sale and consumption of food and drink under the Adulteration of Food and Drugs Act 1872 and the Sale of Food and Drugs Act 1875.

The Poor Law Commissioners' reports show that statistics on disease and its causes were accumulated from local and national surveys and linked the medical science and social science of the time, providing a basis for law reform. Both official and private[58] statistical surveys co-existed and parliamentary select committees began to develop a statistical basis for parliamentary information. Government departments also began to collect statistical information. A Statistical Department, which gathered data on trade and manufacturers, worked from 1832 in the Board of Trade. This was followed by the establishment of statistical sections in the Colonial Office, the Home Office and the Inspector-General of Imports and Exports. A General Register Office was set up under the Registration Act 1836 and indexed, collated and recorded the returns on births, deaths and marriages. The foundation for the use of statistical and scientific data as an aid to the resolution of social and environmental problems was truly established.

The statutory provision to control environmental and health problems was influenced by the public and private collection of statistics and by science in other areas. In recognition of the growing problem from air pollution, particularly from industry,[59] there was a Royal Commission in 1876 into Noxious Vapours,

To inquire into the working and management of gas works and manufacture from which vapours and gases are given off, to ascertain the effect produced thereby on animal and vegetable life, and to report on the means to be adopted for the prevention of injury thereto arising from the exhalations of such acids, vapours and gases.

The outcome was the Alkali Acts of 1863 and 1868[60] intended to control emissions from part of the heavy chemical industry. It was these that created the first inspectorate. Other Royal Commissions were established to consider other environmental problems; one such was the 1874 Royal Commission inquiring into,

what towns and places contributed to pollution of the River Clyde and its tributaries; how the sewage and refuse from such places could be got rid of without risk to public health or to the disadvantage of manufacture; and the best means of purification of the river.

In fact many of the urban and industrial rivers and waterways of nineteenth century Britain were in a similar state to the Clyde, highly polluted. The Rivers Prevention of Pollution Act 1876 brought forward the prevention and control of river pollution. This Act together with the Alkali Acts heralded the beginning of a pollution control strategy and laid the foundations of the "inspectorate" approach to solving environmental problems. The work of the Royal Commissions, the statistical societies and individuals collecting statistics recognised the important use of scientific statistics and data in support of law reform and in addressing environmental problems. They were in embryo the link between quantifiable scientific data and environmental law. Natural sciences, the terminology of the period, became subject to statistical analysis linked to statistical predictions that formed one basis for social and economic policymaking.

The period after the two world wars provided opportunities for re-assessment of the environment and environmental law.[61] Scientific influence at this time continued through the ecological movement and this led to the founding of the British Ecological Society in 1913.[62] The study of nature was no longer left to amateurs but rather ecologists such as Aldo Leopold[63] applied scientific methodology to the study of communities and habitats. It took considerable time, especially with the interruption of two World Wars, before environmental thinking became influential. An important centre point for the intellectual development of green issues came with the publication of *Silent Spring*[64] in the 1960s and *The Ecologist* in 1972. Voluntary organisations remained important in contributing to the development of environmental protection, e.g. the National Smoke Abatement Society, supplementing legislative and judicial initiatives. The twentieth century saw science contribute to environmental regulation by setting standards that addressed the problems of industrial and urban expansion.

The environmental and public health challenges caused by industrial and urban development, oil refineries, tinplate works and cement manufacturing came within the jurisdiction of the Alkali Inspectorate.[65] An even wider extension of the work of the Alkali inspectors came with the significant Clean Air Act 1956. This was a response to unprecedented pollution from smoke and fumes. The devastating smogs that struck London and urban conurbations in the 1940s and 50s brought a public outcry and parliamentary debate resulting a series of Ministry of Health enquiries followed by a full-scale enquiry under the chairmanship of Sir Hugh Beaver. The key recommendation of the Beaver Enquiry was to reduce smoke emissions by up to 80% in urban areas within 15 years. The enquiry linked the science of smoke and fume pollution to impacts on health and regulatory control. The Clean Air Act 1956 was the result. The Alkali Inspectorate pressed on further limiting grit and particulate emissions, and regulating emissions from steel and iron works. The underlying and diverse interactions between different emissions and their subsequent environmental impacts were recognised in a regulatory framework under The Control of Pollution Act 1974. This applied the scientific understanding that emission controls had to be integrated across air, land and water to be successful. It also adopted the "polluter pays" principle. This Act brought together concepts from science and law to provide effective environmental regulation.[66]

Anti-Discrimination Legislation: National Responses

The need for national legislation became apparent during the late 1960s in Britain. Immigration from India, Pakistan and the West Indies led to much racial tension and friction. Racial tensions increased and the Notting Hill riots in 1958 underlined the need for appropriate legal protection. The Race Relations Act 1965, modelled to some extent on the US Civil Rights Act 1964, made it illegal to discriminate on the grounds of race in specific public locations, pubs and dance halls. A new offence of incitement to racial hatred was established with conciliation procedures operating under the Race Relations Board, an independent body to oversee the legislation. The 1965 Act was a promising start but it failed to have sufficient enforcement powers. The Race Relations Act 1968 was an improvement on previous legislation, with a newly established Community Relations Commission and improved enforcement measures. The US experience proved instructive with lessons from the riots in the 1960s in Watts in Los Angeles. The 1968 Act also proved inadequate and the 1976 Race Relations Act extended the reach of the law to private clubs, as well as "patterns of discrimination" and discriminatory practices more generally. Both criminal and civil law remedies are now activated when there is any discrimination, with a Commission for Racial Equality established that may take up the complaints of an individual or group. Court cases may be facilitated by the Commission, though the case is taken by the individual complainant. Investigations may be undertaken and results published.

One important aspect of anti-discrimination strategies is in the public procurement of goods and services. The duty on local authorities under the Race Relations Act 1976 provided important restrictions on contracting procurement that was discriminatory. The Broadcasting Act 1990 created responsibilities on certain licence holders to make arrangements for promoting equality of opportunity between men and women. Equality

principles extended beyond a narrow set of rules and procedures. The Race Relations (Amendment) Act 2000 followed the death of Stephen Lawrence, and required responsibilities to prevent racial discrimination to apply to a wide range of bodies.

The Rule of Law and the Equality Acts 2006 and 2010

"Mainstreaming" the concept of equality is an important development in ensuring equality, diversity, and eliminating unlawful discrimination as well as protecting human rights. The Equality Act 2006 made it possible for a more holistic approach to be taken. The creation of the Equality and Human Rights Commission brought together the Commission for Racial Equality, the Equal Opportunities Commission and the Disability Rights Commission. The new Equality and Human Rights Commission allows for the enforcement of equality legislation on age, disability, gender religion, race and sexual characterisations under a single statutory body. The range of powers includes advice and guidance as well as research and publishing information. In addition, there are legal enforcement powers to ensure that the law is clear and rights and duties are being applied correctly. The aim is to set priorities and practices that enhance rights and, in certain cases, the use of courts or tribunals to ensure binding agreements. The range of activities undertaken by the Commission provides a widely drawn net of important social and economic problems that mitigate against participation in society by many groups on the basis of fairness and equality. Many of the ideas and principles may be found throughout many countries.

The Equality Act 2010[67] is a broadly drafted provision intended to offer a legal framework that addresses various forms of discrimination. Public authorities have a duty to have due regard for the need to eliminate discrimination, harassment and victimisation. The requirement is to have "due regard" to such matters as "age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual disorientation". The width of the Act is its main benefit in setting a high level of tolerance relating to all aspects of social life and society. The defect is that very often the courts will struggle with interpretation and how best to give due regard to the issues raised by the Act. Interpreting the motives of decision-makers is complicated by the facts and the limitations on many public bodies to address such a wide range of issues in a satisfactory way. The legal duty is framed in terms of the minimum acceptable as well as the overarching responsibility set by the legislation. It is not a matter of "tick box" compliance. It is broadly defined in terms of material considerations that are relevant and are part of the statutory arrangements. This is potentially an onerous task that is time consuming but is an integral part of the decision making process as a whole.[68]

One important feature of the legislation is section 158 of the Act provides a positive duty that requires action in respect of employment. This is an unusual and important part of the legal system to change a duty to do something into a requirement to take positive action. Normally this might require a proactive step and would not normally be sanctioned by law. The UK legislation stops short of allowing positive discrimination. Instead, the Act provides a permissive framework to encourage good practice and to hope that voluntary action may be sufficient. Proportionate and reasonable, it is hoped that discriminatory practices and attitudes will be overcome by minimizing the disadvantage suffered by some. There are a wide category of protected persons including age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity, race, religion, or belief, sex and sexual orientation. The Act allows such groups to be targeted to provide protection and legal certainty about their status. This may also include policies on recruitment and promotion. Section 159 allows an employer to take a protected characteristic into consideration when deciding whom to recruit or promote. This can only be done where the candidates are as qualified as each other. The method adopted in the legislation is voluntary, allowing employers to make policy decisions. This has the benefit of slowly changing and influencing the employment culture. The disadvantage is that it falls short of the expectation set by many disadvantaged people that their disadvantage will be addressed and fairly treated on merit. Policymaking in this arena is difficult. Measuring the success of the legislation will also take time.

Legal rules and their application are likely to have limited affect. There are new situations where it is imperative to develop new strategies for future policymaking. The way forward is to provide flexibility. This is achieved through the Enterprise and Regulatory Reform Act 2013, which provides the use of an Order in Council to allow different aspects of discrimination to be considered and developed. The process involves carrying out a review of the main issues and then, if required, the introduction of new powers. There is an International Convention on the Elimination of All Forms of Racial Discrimination. One issue is whether caste may be a ground for discrimination. The findings of an Employment Appeal Tribunal[69] that caste could be a ground for discrimination marked an important step in broadening the scope of the protection of the law.

Finding a legal framework for fair employment: The living wage and the Equality Act (Gender Pay Gap Information) regulations 2016

Poverty reduction applies to many who are seemingly employed but receive small wages or, in the case of zero-hour contracts, receive very little remuneration. The poverty line is currently at £7.85 per hour outside London,

and £9.15 in London. The National Minimum wage was set by legislation that set a legally enforceable standard for payments to employees. The living wage is an arrangement for payment that looks beyond the minimum wage and seeks to address low pay. The actual rates of low pay are falling since the 1970s, leaving many sectors badly off than ever before. In the hospitality industry 69% of workers are low paid; in retail 41%, with younger workers most seriously affected. Women are the largest group that are badly suffering from low pay. The decision to introduce a living wage was made in June 2013 and there are regular updates on performance. In theory, the living wage should help reduce poverty but it is too soon to tell whether or not this will be the outcome.[70]

The role of equality status is an important means of providing fairness. The new regulations address gender pay gaps by requiring private and voluntary sector employers in England, Wales and Scotland to provide pay details, including any bonus payments over the past financial year. The aim is to publish realistic data on the payments received by mean and women.[71] Mandatory pay reporting is intended to encourage steps in bringing together sufficient information on gender inequality. The use of a publication strategy is intended to address, through reputational damage and negative publicity, pay convergence as a means of promoting fairness and equality. There are also possible implications for any procurement issues in terms of government contracting and reputational damage when gender pay gaps are uncovered. Increasingly important are the varieties of financial and fiscal studies that reveal the challenges that confront social and economic inequalities.[72]

The Judiciary and the State

The role of the judiciary is often decisive in interpreting national legislation.[73] Independent and separate from the other organs of government, the legislature and the executive,[74] it is the judiciary who provide guidance on the interpretation and implementation of the law. Most legislation is not subject to judicial scrutiny or interpretation because litigation does not always occur in areas where matters of interpretation are in dispute or are unclear.[75] Recently, Lord Thomas, the Lord Chief Justice of England and Wales, has concluded[76] how the judiciary are an important, but independent part of governing, providing through the application of the rule of law a coherent role in ensuring the interpretation of legislation follows the intention of parliament. Articulating the intention of Parliament is not easy, since it engages with policy even though the context of the interpretation of legality is the rule of law. Assessing intention may involve[77] the review of many documents, including parliamentary debates and government policy, that may help explain the way the legislation should be considered. In many instances there is some guidance on how legislation might be interpreted. Section 3 of the Human Rights Act 1998 requires a court or tribunal to give effect to legislation that is compatible with the European Convention on Human Rights. Uppermost in the mind of the judges is the need to take account of democratic principles, uphold the rule of law and prevent unnecessary or excessive executive power. Setting rules of interpretation within legislation is a means of giving advice and guidance on how legislation should be interpreted. Clear and understandable legislation is an important first step. Eliminating vagueness or uncertainty is also important. European Union legislation is particularly challenging, as it requires reading UK law in a way that is compatible with EU laws. This may call for some creativity in reading and interpretation, allowing the courts some discretion as to how to “read” words or add concepts that fit into the meaning of the words. This sets challenges in an effort to secure the proper functioning of legislation.[78] None of this is easy or indeed a guarantee of a better understanding of the complexity of technical and challenging legislation. It is simply a methodological approach that sets the means by which judicial discretion is to be understood. The point of legislation is that it conveys policymaking and choices set in the context of priority setting and economic values. This makes the value of legislation especially important in redressing the needs of poor against rich. It also partly explains why legislation may fall short of what is expected or intended, as judicial discretion is an important but also unpredictable element in implementing national legislation.

Conclusions

National legislation creates many opportunities for social reformers and political groups keen to see a more equal and participative society. The nineteenth century examples in the UK point to major social progress that can be achieved through legislation in areas such as public health, housing and sanitation, employment and education. Underlying the rationale for legal intervention is the realisation that market-led solutions are not reliable or dependable.[79] The limits of the market to halt or deter discrimination or change poverty reduction strategies have been clear since the 1950s and 1960s. If the lessons of market failures are difficult to learn, so is the ineffectiveness of government illustrated by the constantly shifting legislative interventions that are intended to remedy past shortcomings. The experience of anti-discrimination legislation in Britain is a slow learning curve of correcting past mistakes or defects in the legislation. Undoubtedly anti-discrimination legislation in the 1960s and 1970s has given rise to equality status and “mainstreaming” into many parts of the economy through legislation.

Contemporary examples such as the Equality Act also point to the potential to make society fairer. Legal rights and obligations associated with equalities, rights and attempts to prevent discrimination and hate crime have some significance. As McCrudden[80] has shown, the development of status legislation, providing equality status to many groups and individuals, creates important links between policymaking and implementation strategies that build on the core elements of anti-discrimination legislation. Different approaches are evident based on an individual justice model as well as a group justice model. These approaches have been supplemented through international and intergovernmental approaches as well as the introduction of what is called “mainstreaming”.[81] The latter has much potential to run. Fostering legal solutions may also provide a targeted and specific approach to certain social problems. There is also an important and powerful means of asserting community values and ensuring that there is solidarity and fraternity as an antidote to conflict, bitterness and divisions. There is an intuition that the promoting self-help and supporting voluntary groups may help mitigate the failures and shortcomings in the system of justice.[82] The role of law, despite its many and various limitations, provides a powerful means to persuade companies, and all sectors of public life, to engage in good behaviour that they would otherwise not have done. Yet the pattern of requirements is uneven and often open to interpretation. The research undertaken by the Human Rights and Equality Commission is indicative of just how much more progress is required and how hard this is likely to be.

National legislation has limitations as the problems lie much deeper in the political system and in the way society interacts with social and economic problems. The UK Government White Paper in 2012 makes the compelling point:

Today participation requires changes to society, not changes to the law. This means that building a more integrated society is not just a job for government. It requires collective action across a wide range of issues at national and local levels, by public bodies, private companies and, above all, civil society at large.[83]

The White Paper suggests that local civil leadership may have a role in enhancing participation in social change. The Localism Act 2011 gives local people the right to challenge public decisions based on community justice including even the running of local services. Local partnerships are also seen as a potential solution in the development of strategy for social integration. The White Paper envisages participation projects, tackling an assortment of issues, including the conditions for participation in long-term social and economic challenges. Political influences are overarching in the way they may set agendas and create opportunities. This may have limited the room for social and economic issues to be aired and discussed. The Equality Act shows many limitations in national legislation. Much of the Act is aspirational with uncertainty as to how to create a mandatory structure to eradicate inequality and create equal opportunities. Creating change is always going to be challenging in the light of the conflicting nature of expectations in society. In the context of Brexit, and a political movement to the right of centre in many countries, the directions for the future look unpromising. It is here that Churches and religious groupings at local, community and central levels must provide a fresh agenda. Responses to human trafficking and many initiatives associated with helping unaccompanied minors are indicative of public opinion and social concern at work. Participation relating to social, economic and cultural challenges is one of the most difficult problems that will have to be confronted in terms of all the dimensions of race, ethnicity and religious belief. The participation of society is difficult and challenging. Avoiding the difficult decisions will simply leave it to future generations to deal with the problem when it is perhaps insurmountable.

National legislation is an instrument of policy but implementation is another matter. Capacity is needed to carry through and meet strategies for the legislation to be successful. Credibility is required to engage with beliefs and expectations. Incentives are needed to overcome any gains or benefits from non-compliance. Engagement with obstacles or vested interest designed to prevent effective law is also essential. Perpetrators must be deterred and whistle-blowing must enable the law to be enforced. The powerful must be confronted with their wrongdoing and their moral and social responsibilities articulated.

National legislation is also an instrument of coordination. It allows certain behaviour to be encouraged through options and outcomes. Laws may create a change in social norms and the recalibration of social responsibilities. National legislation can create a culture of compliance. It may also facilitate the transplantation of laws from different countries and in certain specific areas create greater economic rights. E.P. Thompson noted that the “forms and rhetoric of law acquire distinct identity which may, on occasion, inhibit power and afford some protections to the powerless”.[84] More recently Paul De Grauwe[85] has questioned how far will such binding or legal environmental constraints – such as on the control of climate change – be effective? Market-led solutions have not worked, leaving excessive inequality and large measures of financial instability. Effective national legislation must be underpinned by the setting of appropriate priorities, and this is the policy vacuum that needs to be addressed.[86]

End notes

[1][1] See: Sharon L. Harlan and others, “Climate Justice and Inequality” in Riley E. Dunlap and Robert J. Brule, *Climate Change and Society*, Oxford: Oxford University Press, 2015, p. 127.

[2][2] Elizabeth Fisher and others, “The Legally Disruptive Nature of Climate Change” (2017), *Modern Law Review* 173-201.

[3] World Bank Development Report, *Governance and the Law*, Washington: 2017.

[4] C. McCrudden, “Legal Research and the Social Sciences” (2006), 122 LQR 632.

[5][5] J. Jowell, “Of Vires or Vacuums: The Constitutional Context of Judicial Review” in C. Forsyth ed., *Judicial Review*, Oxford: Hart Publishing 2000. L. Fuller, “Adjudication and the Rule of Law” (1960) 54, *Proceedings of the American Society of International Law at its Annual Meeting* (1921-1969) 1, J. Habermas, Communication and the Evolution of Society Cambridge: *Polity* 1984, 178.

[6] Paul De Grauwe, *The Limits of the Market: The Pendulum between Government and Market*, Oxford: Oxford University Press, 2016.

[7] C. McCrudden, *Buying Social Justice*, Oxford: Oxford University Press, 2007 pp. 63-66.

[8] See Ibid., McCrudden chapter 3 and also see: C. McCrudden, D.J. Smith and C. Brown, *Racial Justice at Work: The Enforcement of the Race Relations Act 1976 in Employment*, London: Policy Studies Institute, 1991.

[9] K. Yeung, “The Private Enforcement of Competition Law” in C. McCrudden eds., *Regulation and Deregulation: Policy and Practice* Oxford: Oxford University Press, 1999 p. 37. C. McCrudden, D.J. Smith and C. Brown, *Racial Justice at Work: The Enforcement of the Race Relations Act 1976 in Employment*, Policy Studies Institute 1991.

[10] See J. McEldowney, “Comparative law, rights and the environment” in U. Baxi, C. McCrudden and A. Paliwala, *Law’s Ethical, Global and Theoretical Contexts*, Cambridge: Cambridge University Press, 2015, pp. 196-212.

[11] Boyd Hilton, *A Mad, Bad and Dangerous People? England 1783-1846*, Oxford: Oxford University Press, 2008.

[12] Marco Goldomi and Michael A. Wilkinson, The Material Constitution, London School of Economics 20/2016, LSE Working Papers, London: LSE. M. Loughlin, “Political Jurisprudence” (2016) 16, *Jus Politicum* 15.

[13] R. Cookson and others, “Socio-Economic Inequalities in Health Care in England” (2016), *Fiscal Studies* Vol. 37 (4) pp. 371-403. At p. 397.

[14] Institute for Fiscal Studies, *The IFS Green Budget* (February, 2017) pp. 176-7.

[15] See: Hanna Lerner, “Making Constitutions in Deeply Divided Societies” (2013), *Public Law* 201. James Tully and Alain G. Gagnon (eds.), *Multinational Democracies* Cambridge: Cambridge University Press, 2001. Mark Tushnet, *Taking the Constitution Away from the Court*, Princeton University Press, 1999. Stephen Tierney, *Constitutional Law and National Pluralism*, Oxford: Oxford University Press, 2004.

[16] T.J. Pempel ed. *Uncommon Democracies: The One-Party Dominant Regimes*, Ithaca: Cornell University Press, 1990. Arend Lijphart, *Democracies: Patterns of Majoritarian and Consensus Government in Twenty One Countries*, New Haven: Yale University Press, 1984. Jean Blondel, “Party Systems and Patterns of Government in Western Democracies” (1968), *Canadian Journal of Political Science* Vol. 1 No. 2, pp. 180-203. See: Valery Ferim, “Flaws in Africa’s One-Party Democracies: The Case of Cameroon and South Africa” (2010), *Cameroon Journal on Democracy and Human Rights* 28. Dennis P. Patterson, “The Strategy of Dominant Political Parties: Electoral Institutions and Election Outcomes in Africa” (2011), American Political Science Association. Hanna Lerner, *Making Constitutions in Deeply Divided Societies*, Cambridge: Cambridge University Press, 2012. Andrew Feinstein, *After the Party: Corruption, the ANC and South Africa’s Uncertain Future*, 2010. Also see Anthony Butler, *Paying for Politics: Party Funding and Political Change in South Africa and the Global South* (2011). Binneh Minteh, *Democratization and Political Instability in West Africa 1960-2010: Post-Independence Pluralist Coercive One Party Rule: Coups, Conflicts and Democratization* (2010). Valery Ferim, “Flaws in Africa’s Dominant One-Party Democracies: The Case of Cameroon and South Africa” (2010), CJDHR Vol. 4 no. 1, pp. 28-41.

[17] Charles Manga Fombad, “A Preliminary assessment of the prospects for judicial independence in post-1990 African Constitutions” (2007), *Public Law* 233. C. Larkins, “Judicial Independence and Democratization: A Theoretical and Conceptual Analysis” (1996) 44(4), *American Journal of Comparative Law* 605.

[18] P. Russell and D. O'Brien, *Judicial Independence in the Age of Democracy: Critical Perspectives from Around the World* University of Virginia, 2001. Justice Nicholson, "Judicial Independence and Accountability: Can they Co-exist?" (1993) 67, A.L.J. 404.

[19] M.Blyth, *Austerity: The History of a Dangerous Idea*, Oxford: Oxford University Press, 2013.

[20] Stefan Collini, *Public Moralists*, Oxford: Oxford University Press, 2006. S. Romano, *The Legal Order* Routledge, 2017.

[21] Lord Bingham, *The Rule of Law*, London: Penguin, 2010.

[22] Michael Lobban, *The Common Law and English Jurisprudence 1760-1850*, Oxford: Clarendon Press, 1991.

[23] See: *Somerset's Cas*e (1770), 20 St T. 1.

[24] See: Robert Tombs, *The English and Their History*, London: Penguin Allen Lane 2014, pp. 871-5.

[25] This is a revised version of some of the main issues discussed in: J.F. McEldowney and S. McEldowney, "Science and Environmental Law: Collaboration across the Double Helix", (2011) 13(3), *Environmental Law Review*, pp. 169-198.

[26] Dotum Ogunkoya, "John Stuart Mill's 'Harm Principle' as the foundation for healthy social relations" (2011) Vol. 14 (17), *The Journal of International Social Research* 516-33.

[27] Hugo, *Lehfbuch des Naturrechts, al seiner Philosophie des positive Rechts* (Berlin, 1819).

[28] William Blackstone (1723-1880), scholar and legal intellectual.

[29] Auguste Comte (1798-1857), French philosopher, *Cours de Philosophie positive*, 6 volumes, 1930-1842 and *Système de Politique Positive* (1851-1854) His positivism and vision for humanity brought religious zeal and enthusiasm without formal religious beliefs.

[30] Frederic Harrison (1831-1923).

[31] Charles-Louis de Secondat, Baron de La Brède et de Montesquieu (1689-1755), French philosopher and author of *De l'esprit des lois* (1748).

[32] Gustave von Hugo (1764-1844).

[33] Fredrich Karl von Savigny (1779-1861), Law Professor at Marburg engaged in the Commission for revising the Prussian Code (1810-42).

[34] K.F. Eichorn (1781-1854).

[35] Sir Henry Maine (1822-1888), Jurist and historian. H. Maine, *Early Law and Custom* (1883).

[36] Bill Bryson (Ed.) *Seeing Further. The Story of Science & The Royal Society*. The Royal Society, Harper Press, London (2010).

[37] K. Baker, *Condorcet: From Natural Philosophy to Social Mathematics*, Chicago: University of Chicago Press, 1975, Gerd Gigerenzer et al., *The Empire of Chance: How Probability Changed Science and Everyday Life*, Cambridge: Cambridge University Press, 1989.

[38] Today, for example, the commercialisation of nanotechnology has posed substantial regulatory problems and GM technology, cloning technologies and, most recently, synthetic biology have raised difficult social, ethical and governance issues.

[39] Richard J. Lazarus, *The Making of Environmental Law*, Chicago and London: University of Chicago Press, 2004, p. 1.

[40] For an excellent discussion of these collectors and their significance see Richard Fortey, *Archives of Life: Science and Collections*, in Bill Bryson, *Seeing Further. The Story of Science & The Royal Society*. London, Harper Press 2010, pp. 184-201.

[41] Gilbert White, *The Natural History of Selborne,* Richard Mabey (Ed.), Penguin Books, London, 1977 (first published 1788-9).

[42] See: B.W. Clapp, *An Environmental History of Britain*, Longman: London and New York, 1994, p. 1. Clapp attributes the use of the term conservation to Bertrand Russell in the 1950s. H. Gardner, *The Mind's New Science*, New York, 1985.

[43] Thomas Robert Malthus, (1766- 1834), *Principles of Population*: London, 1798.

[44] Christopher Rootes, *Nature Protection Organisations in England.* In W.T. Markham and C.S.A. van Koppen (eds.), 'Protecting Nature: Networks and Organizations in Europe and the United States', 2007, Edward Elgar, Cheltenham, pp. 34-62.

[45] See William Petty (1623-87) and John Graunt (1620-1647), two of the founders of the study of statistics.

[46] *Natural and Political Observations on the Bills of Mortality*, London, 1662.

[47] M.J. Cullen, *The Statistical Movement in Early Victorian Britain*, Harvester, 1975, pp. 1-6.

[48] W.M. Frazer, *A History of English Public Health 1834-1939* (1950). R.A. Lewis, *Edwin Chadwick and the Public Health Movement 1832-1854* (London, Longman, 1952). M.W. Flinn, *Public Health Reform in Britain*, Macmillan London, 1968). Evans, *op. cit*. p. 12. Joel Mokyr (ed.) *The Economics of the Industrial Revolution* (1985), U.S.A., Rowman & Littlefield Publishers. Abbott Payson Usher, *An Introduction to the Industrial History of England*, Boston: Houghton Mifflin Company, 1920.

[49] William Black, *Observations Medical and Political on the Smallpox* (London, 1830).

[50] Francis McManus, *Environmental Health Law*, Blackstone Press, 1994, p. 4.

[51] The Statistical Society of London had set up a census committee which included in the membership William Farr and G.R. Porter.

[52] Professor R.D.C. Black, *History of the Society, The Statistical and Social Inquiry Society of Ireland, Centenary Volume 1847-1947*, Dublin, 1947. The Dublin Society had a large number of prominent Irish lawyers among its membership and its international dimension was reflected in the honorary membership offered to John Stuart Mill and Nassau Senior in 1849.

[53] Cullen, *op. cit.*, p. 63.

[54] Francis McManus, *Environmental Health Law*, Blackstone Press, 1994, p. 3.

[55] In Scotland see the Public Health (Scotland) Act 1897.

[56] See the Housing of the Working Classes Act 1885 and 1890. Also see the Shaftesbury Act 1851 and the Torrens Act 32 & 32 Vict. c. 130.

[57] See: The Town and Country Planning Act 1947.

[58] The best examples given by Cullen, *op. cit.*, p. 23, were the various leading hospitals; Bethlem, Greenwich, St Thomas's, St Bartholomew's and St Luke's.

[59] A description of the problems of air pollution at this time can be found in B.W. Clapp, *An Environmental History of Britain since the Industrial Revolution*, Longman, Essex 1994, pp. 19-32.

[60] See: The Alkali, etc., Works Regulation Act 1906.

[61] The earliest town and country planning laws came with the Housing, Town Planning etc. Act 1909 with Local authority powers. The Town and Country Planning Act 1947 introduced after the Second World War became the basis for the rebuilding of new towns and cities. The National Parks Commission (later to become the Countryside Commission) was established. This initiative followed the approach in the USA in setting up National Parks, which was seen as a success in providing a safe haven for wild life and biodiversity.

[62] The *Journal of Ecology* began life in 1927 under the auspices of the British Ecological Society.

[63] Aldo Leopold (1887-1948), American ecologist and environmentalist author of *Game Management* (1933) and the *Sand County Almanac* (1949) and Professor of the University of Wisconsin. Regarded as the father of wildlife ecology and one of the most influential conservation thinkers of the 20th Century.

[64] Also see Rachel Carson, *Silent Spring*, London: 1962, one of the first studies to show the impact of pesticides on the environment.

[65] See: The Alkali Act 1863 and background: A. Markham, *A Brief History of Pollution*, London: Earthscan, 1994. Royal Commission on the Pollution of Rivers, Third Report, *The Rivers Aire and Calder* (1867), Cmnd. 3850.

[66] One common problem was noise and its effects on the community. *Rushmer v Polsue and Alfieri Ltd.*, [1906] 1 Ch. 234 allowed an injunction for loss of sleep accepted by the courts on the basis of scientific information about noise and its measurement.

[67] House of Commons Briefing Paper, *The Equality Act 2010 Caste Discrimination* Number 06862 (21 November 2016).

[68] See: *T and V v UK* (200) 30 EHRR 493. *R (Fawcett Society) v Chancellor of the Exchequer* [2010] EWHCC 3522.

[69] *Chandhok and Anor v Turkey* [2014] UKEAT 0190.

[70] House of Commons Library Briefing Paper, Number 06675 (12 June 2015), *The Living Wage.*

[71] The obligation applies to any firm or employment activity with at least 250 employees.

[72] John Jerrim, “The Link between Family Background and Later Lifetime Income: How does the UK compare with Other Countries” (2017) 38(1), *Fiscal Studies* 49.

[73] There is also the Statute Law Society, established to advance good legislative drafting and the use of clear English.

[74] P. Sales, “*Pepper v Hart*: A footnote to Professor Vogenauer’s Reply to Lord Steyn” (2006), Oxford Journal of Legal Studies 585.

[75] See: Aharon Barak, *The Judge in Democracy*, Princeton and Oxford, 2013.

[76] Lord Justice Thomas, The Judiciary within the State-Governance and Cohesion of the Judiciary, Lionel Cohen Lecture Hebrew University Jerusalem (15 May 2017). Also see Lord Justice Thomas, *The Judiciary Within the State: The Relationship between the Branches of the State,* The Michael Ryle Lecture, House of Lords, 15 June 2017.

[77] See: *Pepper v Hart* [1993] AC 593 and R. Ekins, “The intention of Parliament” [2010], Public Law 709.

[78] Case C106-89 *Marleasing* [1990] ECR-I 4135 (ECJ).

[79] Paul De Grauwe, *The Limits of the Market: The Pendulum between Government and Market*, Oxford: Oxford University Press, 2016.

[80] C. McCrudden, *Buying Social Justice*, Oxford: Oxford University Press, 2007.

[81] The term is discussed in C. McCrudden, *op. cit.*, chapter 3.

[82] See: Emmanuel Melissaris, *On Solidarity*, LSE Working Papers 10/2017.

[83] Communities and Local Government: *Creating the Conditions for participation*, London: 2012 p. 6.

[84] E.P. Thompson, *Whigs and Hunters: The Origin of the Black Act*, London; Penguin 1975, p. 266.

[85] Paul De Grauwe, *The Limits of the Market: The Pendulum between Government and Market*, Oxford: Oxford University Press, 2016.

[86] See: Jo Eric Khushal Murkens, “Democracy as the Legitimating Condition in the UK Constitution”, LSE Working Papers 8/2017. A. Weale, *Democracy*, Palgrave Macmillan, 2nd edition 2007.