How Occupational Hygiene And Health Underpins Every One Of The United Nations Sustainable Development Goals.
Occupational diseases have a direct and indirect impact on poverty. Occupational disease is the cause of a large number of adults failing to be economically active. In the UK alone, 1.2 million people suffer from occupational illnesses, compared to a working population of 32 million. The indirect economic cost of occupational illness derives from lost productivity and taxable income, increased requirement for care-giving which reduces the labour market, increased health and social care costs. All of this has a direct impact in family finances, but also creates a higher burden on taxation. It is estimated by BOHS that preventable occupational Chronic Obstructive Pulmonary Disorder on its own costs the UK economy over £1bn per year, as well as placing thousands of families in poverty because of dependence on benefits and the absence of economic autonomy. Poverty is directly linked to nutrition.
Adults spend the majority of their time at work and the working environment is therefore one of the critical factors in the maintenance of mental and physical health. Occupational hygiene and health also indirectly impacts on families and communities as the catalyst for occupational diseases often spread beyond the confines of work, whether they be related to mental health or physical exposures.
Learning skills and trades requires not only intellectual endeavour, but practical engagement. The learning environment for apprentices and students needs to be one where they are not introduced to hazards that may harm their health, but should include practices that preserve and protect it through later life. Understanding principles of good occupational hygiene as part of education embeds sustainability in learning for life.
Workplace hazards can affect genders differently. From mental stress through to physical strain, the workplace can have lasting damaging effects that make access to work divisive and workplace engagement destructive in different ways for different genders. The continued use of reprotoxins in industrial processes impact reproductive opportunity and an differentially damage human reproductive organs.
Crucial to access to clean water and sanitation are the workers who enable the infrastructure. Lack of prevention of disease amongst this vital group is now recognised as a critical issue amongst those working globally to secure sanitation. At a deep cultural level, working practices which expose individuals to poor occupational hygiene in the provision of sanitation make individuals pariahs in many societies. Ensuring that those working in sanitation are not directly exposed to biological hazards can have a transformative effect on individuals, families and societies.

In addition, the elimination of substances hazardous to human health in the workplace also results in the reduction of discharge of such substances into the aquatic environment.
Current approaches to the management of occupational exposures rely on removal of hazards that have been discharged into the working environment. This creates a huge energy deficit which can range from the need to use energy to remove dusts, gases and harmful particulate matter; the need to manufacture and destroy disposable personal protective equipment; the use of mechanised ventilation which also causes heat loss in colder climates, requiring more heating. The energy footprint of a remedial model of health hazard management is considerable. It can be effectively reduced or removed by designing out health hazards in the workplace.
A fundamental aspect of decent work is being able to go to work and not become ill as a consequence of their labours. Underpinning economic growth is maintaining the proportion of the population who are able to work because of the absence of illness. Occupational health is at the heart of community wealth.
Creating conditions for humans to work more effectively, efficiently and healthily has a huge direct impact on industry, innovation and infrastructure. Mental health is crucial to innovation, physical health to productivity and general health is a requisite to business continuity which enables infrastructure to continue to support development.
Occupational illnesses are still great dividers. In elementary trades and among lower skilled activities, there tends to be fewer protections of workers and greater prevalence of illness. These tend to be the same populations most vulnerable to health, economic and other inequalities. By raising the profile of health within these groups, there is a potential significant impact on reducing inequality.
Sick workplaces create sick communities. In areas where there is a high dependence on workplaces with high prevalence of industrial disease, the impacts are felt widely. Conversely, communities where employment maintains and promotes health and prevent release of substances hazardous to health into the working environment, can have a disproportionately positive effect on general health, environment, economic wellbeing and sustainable development.
The model of employment where hazards are released into the workplace environment and then controlled requires investment of more energy, waste and consumption of materials in the same way as any form of pollution. The notion that a workplace environment can be polluted and then “cleaned up”, while managing down the risks to human health in the process is patently irresponsible.
The contribution of the energy deficit created by cleaning up the polluted workplace (whether that be through disposable dust masks, ventilation of harmful air or incineration of hazardous material) must be seen as a significant contributor to climate change. Conversely, the priority to act on climate change is highlighted by the impact of thermal stress on workers, especially those working outside in occupations such as agriculture and construction.
A simple truth is that hazards which are harmful to health which we let loose into the working environment will find their way into the broader environment in one way or another. If something is harmful to human health, it is axiomatic that it will be harmful to other life as well.
Industrial disease and occupational illness ultimately creates rifts in society. Health injustice at work has been the catalyst for social change, but often through social discord, poor labour relations, strikes, victimisation of workers and other forms of industrial disputes. Conversely, at the heart of justice is the notion that the exchange between employer and employee of labour for reward should not also include bargaining away health and the associated quality of life and economic independence that goes with it. Without effective laws and institutions to ensure that this is not a feature of the consideration for work, the economy creates the seeds of its own destruction.
Creating healthy workplaces is a collaboration between scientists, healthcare professionals, industry leaders and workers themselves. The gains and achievements in this field are an archetypal form of collaboration to achieve the collective goal of sustainable development. When work kills or disables us, whatever the product of work is and wherever the benefit of that work may be found, it cannot be labelled sustainable.