

### **Ecology and Mental Health: Time to understand Ecopsychiatry**

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An interesting viewpoint by Steven Moffic, Professor of Psychiatry at the Medical College of Wisconsin, about ecology in the context of psychiatry, raising the query whether Ecopsychiatry can be a specialty for the 21st century is worth noting.<sup>1</sup> Ecology refers in strict sense to the interaction of living organisms with physical environment. We take 'humans' for living organisms and examine their relationship with the surrounding ecosystem in the context of mental health. An attempt to develop a model not with cause-and-effect perspective but from biological ecology was made by Wilkinson and O'Connor<sup>2</sup> way back in eighties. Long time since then there has been some silence on the subject. The subject is interesting and an eye-opener especially with reference to developing countries with lesser resources and ill-developed infrastructure. Pakistan falls within this category where a large majority live under abject poverty and the environmental conditions are fast deteriorating. For optimum mental health it is important to live in an environment which is suitable and healthy in this context. The current population in Pakistan<sup>3</sup> is around 164,741,924 millions; it is the sixth most populous country of the world, with an annual growth rate of 2.2% while average urban growth rate is 3.1%. Space wise there are 146 persons per square kilometers, while another report<sup>4</sup> mentions 171 persons per km square. Such a huge population and density of humans' livings in a limited area can cause irritability, anxiety and frustration. Inadequate privacy under the circumstances can lead to disturbances in emotional states resulting in frequent quarrels and relationship problems. In Pakistan, there is a growing evidence of widespread environmental degradation throughout the terrestrial ecosystem. This is manifested in deforestation, soil erosion, desertification and species extinction. Environmental pollution is widespread due to gases originating from industries, automobile emissions, radiation, tobacco and burning fossil fuels. These can have adverse effects on concentration and mental well being.<sup>5</sup> Weather conditions in southern parts of the country, specially Karachi are characterized by high temperatures in summer season with humidity and there are reports of heat strokes and exhaustion. This problem is further compounded by electricity failures for hours at a stretch. W.H.O.<sup>6</sup> reports an increase in psychiatric illnesses in view of harsh weather. Rapid industrialization has lead the masses to breakaway from traditional norms; there is rapid emergence of nuclear family systems and high trend of slums and squatter settlements with unhealthy surroundings. This can have a suffocating effect on general as well as mental

health. The basic civic amenities are fast disappearing in view of rapid growth in population and this is taking its toll in the environment in presence of inadequate natural resources. Water quality is deteriorating due to biological contamination from human waste, chemical pollutants from industries and agricultural inputs, salinity and siltation. The level of pollution in Pakistan's two largest cities, Karachi and Lahore, is estimated to be 20 times higher than World Health Organization standards.<sup>7</sup> Poor fuel quality is also to be blamed for the country's serious air pollution problems. Theft or diversion of electricity in transmission, as well as a lack of energy efficiency standards, have contributed to Pakistan's high energy and carbon intensities. It is said that as urbanization continues and the population grows at a rapid rate, in the 21st century, Pakistan will confront its environmental problems in order to safeguard the health of its citizens.<sup>7</sup> The housing problem is also increasing in Pakistan particularly in the big cities.<sup>8</sup> With no effective policy in practice to address this problem, there has been huge overcrowding and congestion. The vast majority of people live in substandard houses with no provision of basic requirements of a 'healthy house'. At many places, one could witness illegal constructions, narrow lanes, garbage all over, flowing sewerage lines, inadequate ventilation, narrow spaces, tiny rooms, improper lightings, damp roofs and inadequate privacy. The builders should follow appropriate recommendations in order to promote the concept of 'Healthy Houses'.<sup>9</sup> Adequate recreational facilities are lacking in the country and this fact has compounded with the problem of insecurity. Of late, the country has been in the grip of violence and terrorism that has caused many people to remain indoors. The traffic menace with hours of road blocks and accompanying noise pollution can have an adverse effect on human psyche. The existing road conditions and faulty underpasses have created a hazard for the people. The work environment in many places is not according to the standards and this can also take the brunt on sound mental health of the individual. Repeated telephone breakdowns, electricity load shedding and the hot weather are other factors which can wreck the mental well being of any individual. Speaking in broad social terms, the social relationship is also of great importance that is becoming pathological under environmental adversities. This situation can be further aggravated if there is joblessness, poverty, meager resources to maintain daily living and other social problems. The consequences are in the form of a number of mental ailments. What should be done under the

circumstances? Major work rests with the government and policy makers but the role to be played by health professionals cannot be ignored. Health education can be a powerful tool with continued campaign for betterment of the life of people. Is there any other way to address this issue?

## References

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