

**“ENERGY AND ENVIRONMENTAL IMPACT ASSESSMENT OF ANDONI LGA, RIVERS STATE, NIGERIA”**

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**ABSTRACT**

Energy drives the economy of the world but its exploitation, could have far reaching impact. The focus of study is Andoni Local Government environmental data base and its oil and gas exploitation impact. The name Andoni is derived from the great river “Okwan Obolo” which the Ijaw toponym describe as “Idoni Toru”, the Portuguese call the same river Rio ‘Desan Domingos’ while the Dutch call it “river Loitombia”. The vegetation of the area is equatorial forest, followed by mangrove transition zone and the beach sand secondary vegetation at the coast and back swamps. Key among the biodiversity are the elephants, sea turtle, python and hippopotami by Niger Delta Environmental Survey. The average rain fall is  $4035 \pm 200$ MM annually. The Tidal range is 1.83m at spring time, but 0.76m at neap tide. The average temperature is  $27 \pm 5^{\circ}\text{C}$  and  $80 \pm 20$  as relative humidity from dry season to rainy season. The geology is indicative of fluviolagional deposit. The wind speed is 5-15m/s depending on the seasons. The average exposure rate from radiation ( $\mu\text{Rh}^{-1}$ ) is  $15.53 \pm 2.15$  as against world average of 13.0. The absorbed dose rate is  $135.1 \pm 5.14$  as against 60.0 world average. The energy potentials is 96 oil wells from 7 multinational firms, which makes the Obolo study area significant.

**KEYWORDS**

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