



Evolution of sea ports of Russian Far East as growth poles in relation to changes in energy structure in Pacific Asia

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Seaports of Russian Far East are important transportation hubs at the Pacific coast. Their development is shown to follow the economic theory of growth poles, where hinterland is situated in terrestrial regions of East Siberian and Far Eastern Federal Regions of Russia and there foreland is countries of Pacific Asia (China, Japan and South Korea). Now days the ports of Russian Far East are mainly specializing on transportation of coal exported from Russia. However, the countries of Pacific Asia are now implementing clean energy strategy, where amount of coal used for energy production should be significantly reduced. How, seaports of Far East as growth poles will evolve in future? This scientific question is studied using biological tubular body approach with so named Physarum network model. The thickness of tubes, describing transportation capacity from hinterland is regulated by foreland resource demand and growth pole processing capacity and orientation. We analyzed future scenarios of the Russian Eastern seaports possible evolution using this model.