

ABSTRACT

A Scenario of Economic Well-Being, Ecological Integrity and Social Equity for the 21st Century

by

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This dissertation develops and advocates a scenario of global development for the next 150 years that incorporates progressive and humanitarian values concerning economic well-being, ecological integrity and social equity. Under this scenario we achieve by 2150 a world characterized by high levels of per capita GDP (\$82,000 1990 US \$); equality of per capita GDP among countries; the absence of poverty; moderate and non-increasing economic inequality among individuals (a 6.5:1 ratio of top and bottom income quintiles); very slow economic growth (0.5% per year); moderately high and non-increasing levels of energy consumption (60 terawatts); stable world population (9 billion); high technological density; a globally integrated, social democratic/internationalist governance regime; strong social controls over potentially destabilizing technologies; and a deeply embedded global ethos that supports these conditions. An unresolved tension concerns the years beyond 2150. Although high, stable levels of resource throughput can be maintained indefinitely after that time, even slow output growth would eventually require massive technological transformation of the natural world. The scenario of world development that this dissertation constructs and advocates gets us to a point in 2150 that is both desirable in itself and that will make it easier for us to negotiate the subsequent transitions, whatever they might be.