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Scoping Future Policy Dynamics in Raw Materials Through Scenarios Testing

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The International Raw Materials Observatory (INTRAW) project is working towards a sustainable future for the European Union in access to raw materials, from an availability, economical, and environmental framework. One of the major exercises for the INTRAW project is the evaluation of potential future scenarios for 2050 to frame economic, research, and environmental policy towards a sustainable raw materials supply. The INTRAW consortium developed three possible future scenarios that encompass defined regimes of political, economic, and technological norms. The first scenario, "Unlimited Trade," reflects a world in which free trade continues to dominate the global political and economic environment, with expectations of a growing demand for raw materials from widely distributed global growth. The "National Walls" scenario reflects a world where nationalism and economic protectionism begins to dominate, leading to stagnating economic growth and uneven dynamics in raw materials supply and demand. The final scenario, "Sustainability Alliance," examines the dynamics of a global political and economic climate that is focused on environmental and economic sustainability, leading towards increasingly towards a circular raw materials economy.

These scenarios were reviewed, tested, and provided simulations of impacts with members of the Consortium and a panel of global experts on international raw materials issues which led to expected end conditions for 2050. Given the current uncertainty in global politics, these scenarios are informative to identifying likely opportunities and crises. The details of these simulations and expected responses to the research demand, technology investments, and economic components of raw materials system will be discussed.