

Press Release

Does industry drive politics? Why involvement in clean energy value chains matters for policy ambition

Does a strong RE industry lead to more ambitious renewable energy policies? Researchers at the Institute for Advanced Sustainability Studies (IASS) conclude: Yes, countries with clean energy industries increase ambition in the following years. So governments should address the distribution of risks and benefits of the energy transition in their policy design as local value creation can be a key component to promoting more ambitious target policies in line with the Paris Agreement's 1.5°C goal.

In their study, IASS researchers Laima Eicke and Silvia Weko hypothesised that increased value chain involvement in the renewable energy industry leads to more ambitious renewable energy policy. This can be explained by the fact that positive feedback effects reinforce policies. According to Eicke, "actors who benefit economically from changes in the value chain invest those resources in political processes to promote favourable policies." Why? Because decision-makers and civil society see renewable energy technologies as an opportunity for growth.

To test their hypothesis, the authors brought together two separate strands of literature, one on policy feedback mechanisms and another on global value chains. They then examined the relationship between value chain position and policy change using a panel data analysis based on data from 78 countries with manufacturing and innovation activities over a ten-year period.

Using this dataset, they were able to analyse how the wind and solar industries changed over time and to model the relationship between industry size and clean energy policies. The authors chose these two industries because they experienced the strongest growth of all renewable energy sources – and are expected to form the backbone of the clean energy system.

Their results showed both that local value creation plays a central role in energy transition processes, and that the former can be promoted by a range of policy instruments, including the creation of joint ventures or local content requirements to increase local manufacturing.

Policy choices should enhance innovative capacity

"We found that growth in manufacturing and R&D is associated with more ambitious renewable policies in subsequent years," notes IASS author Laima Eicke. However, the study also shows that these technology policy feedback effects differ depending on which segments of the value chain are involved. At least in the short term, changes in manufacturing were associated with stronger policy feedbacks than changes in R&D, possibly



due to larger employment effects. Even in absolute terms, growth in wind and solar energy manufacturing has been a more important driver of policy feedback than R&D.

The study contributes to the scholarly understanding of the relationships between technological change and public policy and proposes an interdisciplinary research agenda for the future. The authors stress that policymakers can enhance innovative capacity via public financing to scale up innovation, special research, and training programmes or international technology transfer and partnerships. Under the right circumstances, these measures could even encourage a reinforcing cycle of policy feedback and raise ambition in a sequence of policies.

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