

Does Output Restriction Improve Environmental Outcomes?

Evidence from A Spatial Group Regulation in Norwegian Aquaculture

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Venue: ZOOM Lecture

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Abstract: In 2017, the government of Norway introduced a new regulation, The Traffic Light System (TLS), that divides the Norwegian coast into 13 aquaculture production zones and labels them 'Green', 'Yellow', or 'Red' based on the sea-lice-induced mortality rates on the wild stock. If a production zone is labeled 'Green'/'Red', production capacity should increase/decrease by 6% whereas 'Yellow' means the current level of output should be maintained. Using unique data from this policy experiment, we investigate whether output restriction at the group level improves environmental outcomes and/or affects firms' cost efficiency and profit. We take advantage of spatial and temporal variation in the regulation's implementation to show that a threat of zonal output restriction did reduce the prevalence of sea lice in all production zones across different specifications. Difference-in-difference estimations show that a greater reduction in the prevalence of sea lice is observed in 'Red' labeled zones compared to 'Green' and 'Yellow' zones. Evidence from additional sources indicates that the introduction of the TLS resulted in a loss of cost-efficiency and a reduction in profit. However, the net welfare impact of TLS is found to be positive.

Hosts: **Doan Nainggolan** and **Gregor Levin**, SGA Rural and Urban Land Use, Aarhus University.

External Guests interested in attending the presentation should e-mail Christel Ege-Johansen (cej@envs.au.dk) for a link to Zoom.

