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Ties within and between the 6 regularly equivalent positions in the trade of agricultural products

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Ties Within and Between the 6 Regularly Equivalent Positions in the Trade of Agricultural Products

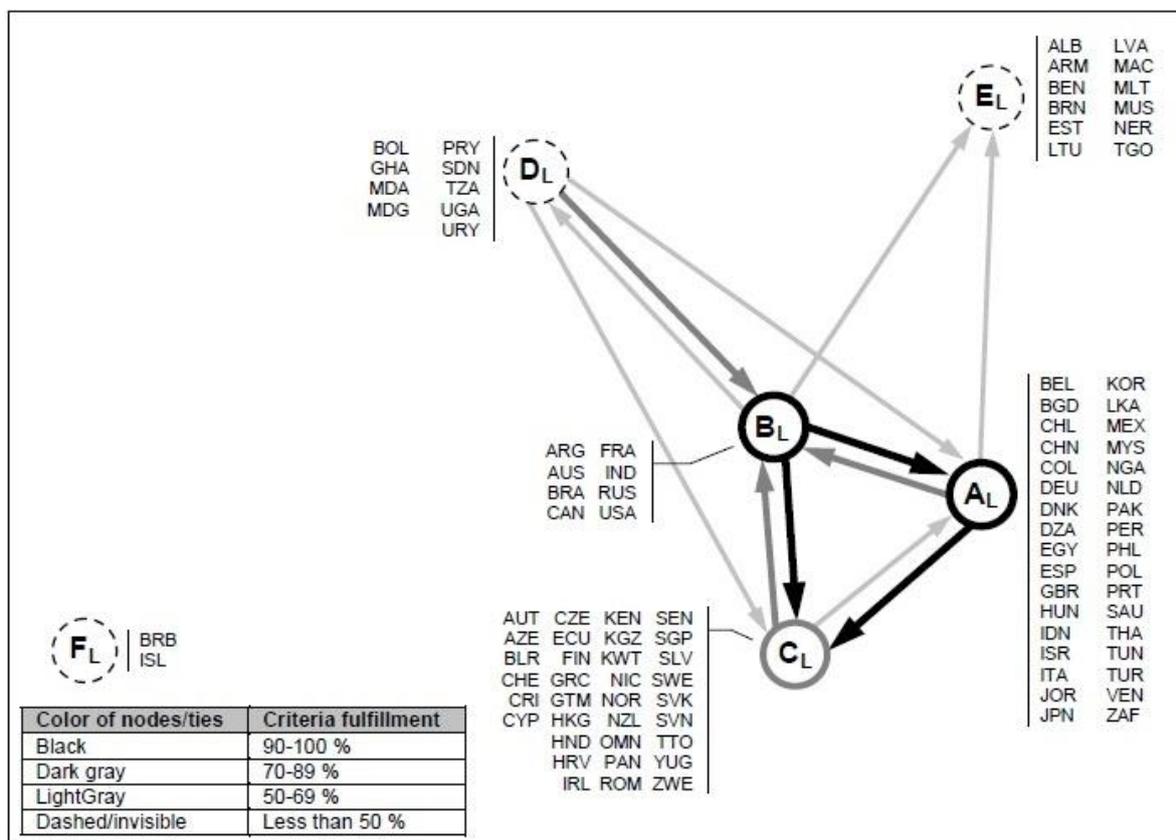


Figure 8.11: Ties within and between the 6 regularly equivalent positions (applying criteria fulfillment formula 1 with a relative cutoff value of ~ 0.0102 ($1/98$)).

Self-Commentary

The diagram above is a structural map of international flows of agricultural hectares (aka ‘ecological footprints’) between 1995-99. Countries are categorized according to their sharing of similar regular

roles in the trade of agricultural products. Positions are determined using multi-dimensional scaling on the matrix containing REGE coefficients, whereas arrows indicate regular ties depicted using a criteria-fulfillment heuristic developed for datasets with huge value spans (Nordlund 2007).

Ties within and Between 8 Regularly Equivalent Positions

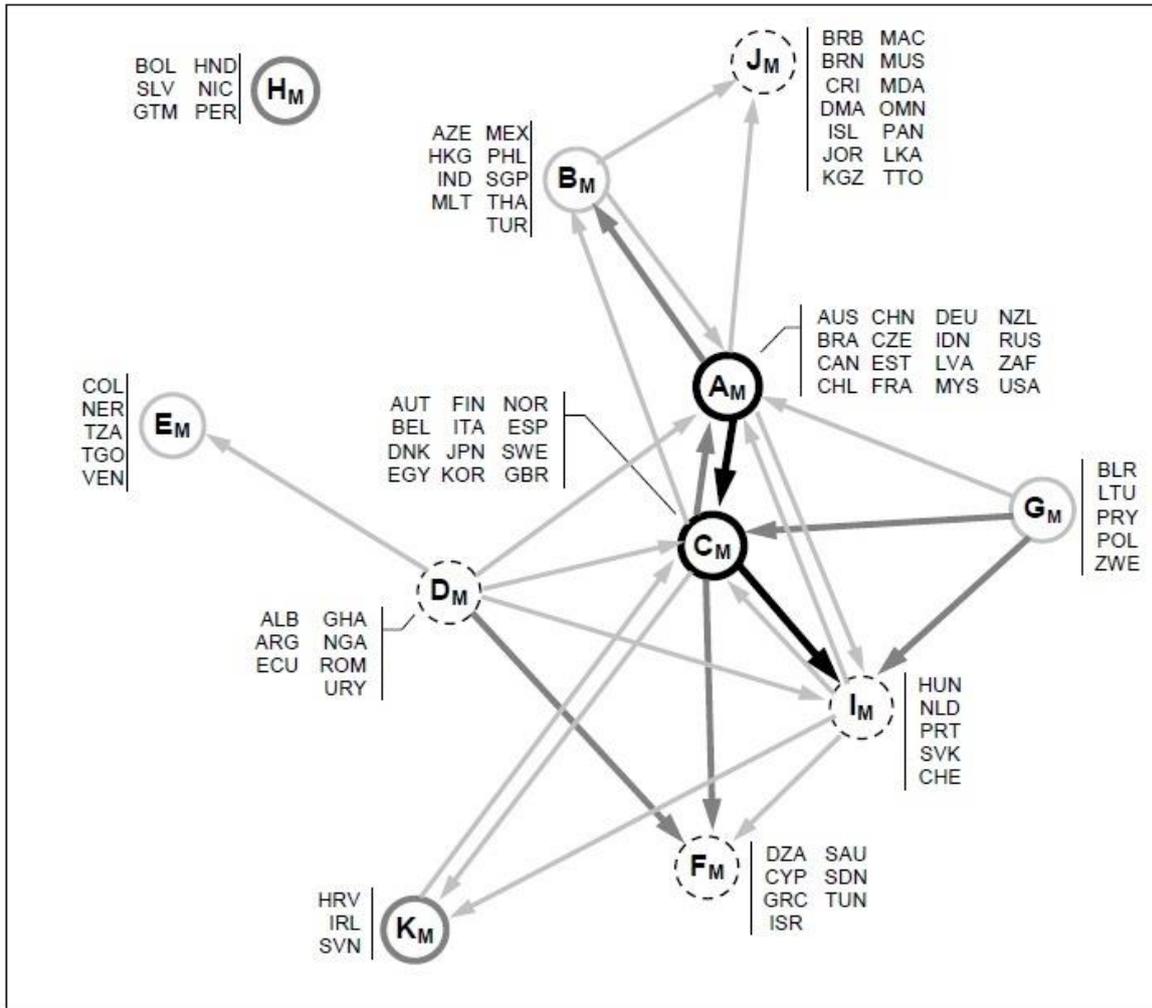


Figure 9.8: Ties within and between the 8 regularly equivalent positions: forestry commodity biomass flows (applying criteria fulfillment formula 1 with a relative cutoff value of ~ 0.0112 ($1/89$)).

Similar to the first diagram, the above second figure is a structural map of international flows of timber biomass during the 1995-99 period. Determining role-equivalence through the REGE algorithm, the resulting structural map depicts a structure where a dual core controls the network of forestry product trade.

Both diagrams are taken from *Ecography; International trade, network analysis, and ecological conceptualizations of unequal exchange* – my PhD thesis in human ecology (Lund university, Sweden), to be published in August-September 2009.

PEER REVIEW COMMENT No. 1

The visualization above depicts the international flows of agricultural and forestry products. The vast web of trade is simplified by placing countries in regular equivalent roles and mapping the relations

across the roles. It is clear from the second graph that the forestry trade network exhibits a dual core structure, where two sets of regularly equivalent countries are at the core of the network. The regular equivalence graph nicely simplifies a very complicated network. The image itself is difficult to use in stand-alone form, since too much is assumed of the viewer. It is not clear, for example, what the "criteria fulfillment" actually is and why it is important, so some simple explanatory work there might be helpful.

PEER REVIEW COMMENT No. 2

This visualization is a depiction of the role structure of an international trade network. While this image provides an excellent concentration of a large amount of information, it is lacking a clear interpretation. As a model of the world system, it would help if there were a simple way to compare the two contents of trade represented in the two figures. I find myself comparing the country codes of the two cores, to see who is left out in each.

PEER REVIEW COMMENT No. 3

This submission provides a great structural view of the data, without obscuring the identities of individual nodes. I wonder if the node identities can be arrayed to provide additional information, without detracting from the structural clarity provided in an REGE-based diagram.