



Australian Government
 Australian Centre for
 International Agricultural Research



BREAKS, BLOCKS AND EDGE EFFECTS:

A CASE STUDY OF HOW BORDERS AFFECT VALUE CHAINS

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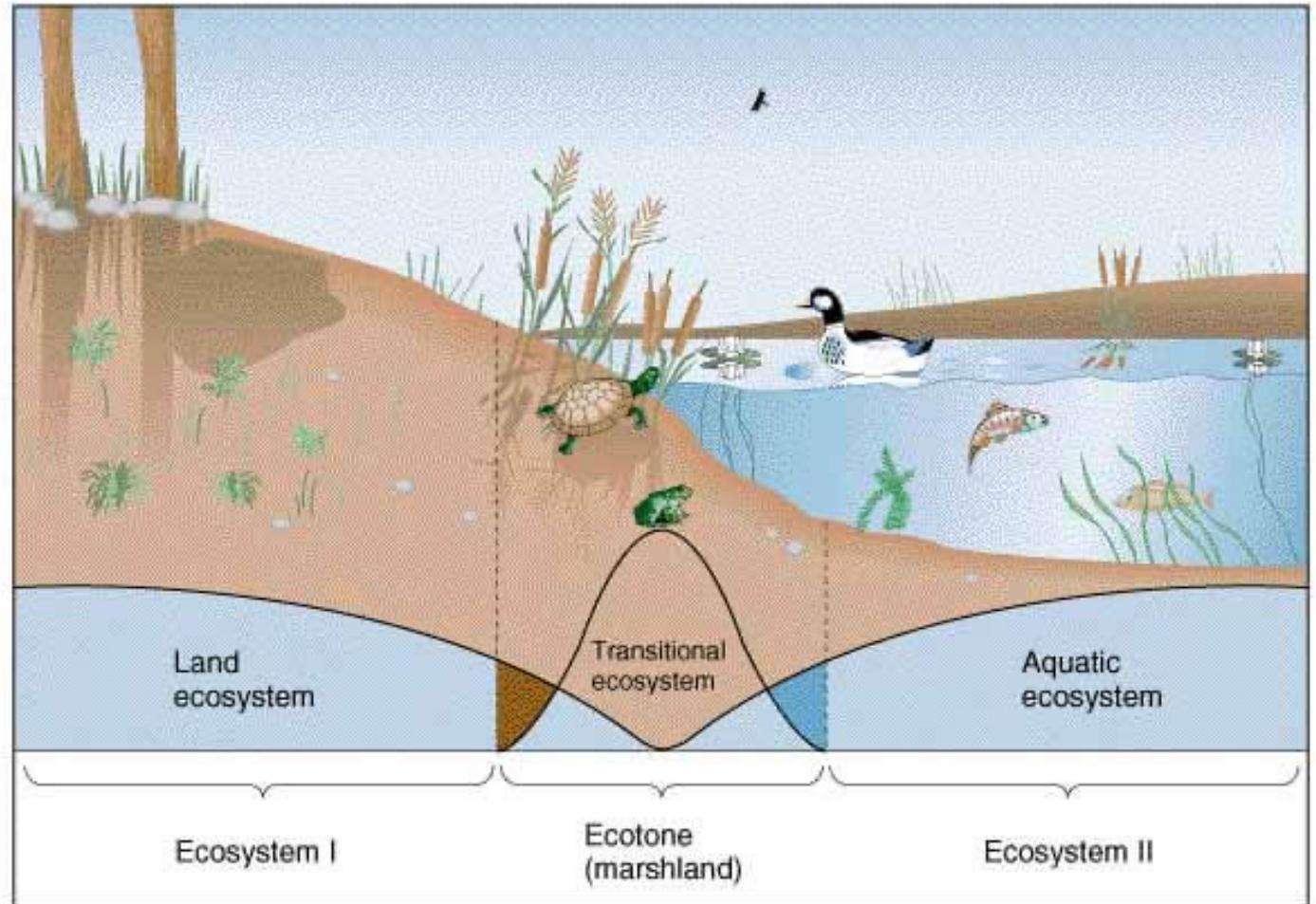
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EDGE EFFECTS



BORDERS AND GLOBAL VALUE CHAINS

- Global Value Chains can have positive impacts on rural incomes and poverty reduction (Maertens & Swinnen, 2009).
- There are backwards spillovers for local suppliers when linking with GVC (Javorcik, 2004, Giroud, 2013)
- However, borders reduce trade and spillover effects (McCallum, 1995) .
- Limited investment across borders due to lack of knowledge and uncertainty around policy (Handley & Limão, 2017) and needing supplies predictably and rapidly (Hummels & Schaur, 2013)
- Spillovers and investments only occur when border controls are reduced or non-existent. (Merleverte and Purice, 2019)

Giroud, X. (2013). Proximity and Investment: Evidence from Plant-Level Data *. *The Quarterly Journal of Economics*, 128(2), 861-915.

Handley, K., & Limão, N. (2017). Policy Uncertainty, Trade, and Welfare: Theory and Evidence for China and the United States. *American Economic Review*, 107(9), 2731-2783

Hummels, D. L., & Schaur, G. (2013). Time as a Trade Barrier. *American Economic Review*, 103(7), 2935-2959.

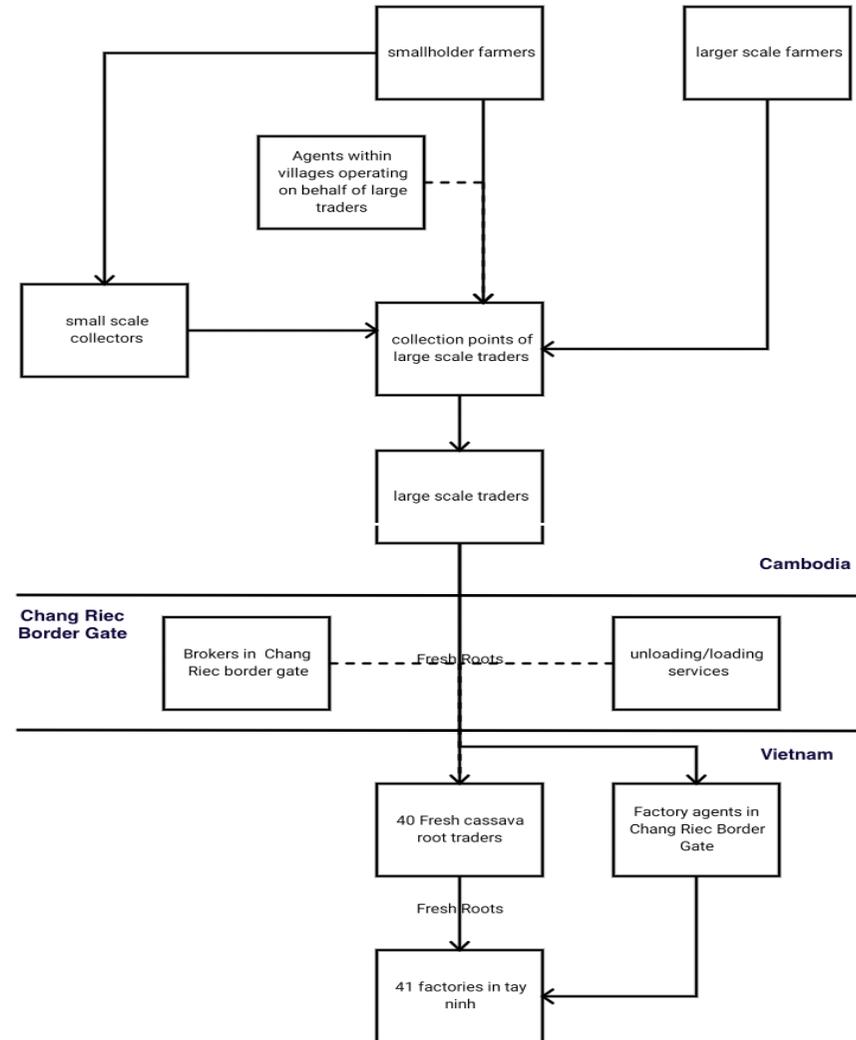
Javorcik, B. S. (2004). Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages. *The American Economic Review*, 94(3), 605-627.

Maertens, M., & Swinnen, J. (2009). Trade, Standards, and Poverty: Evidence from Senegal. *World Development*, 37(1), 161-178.

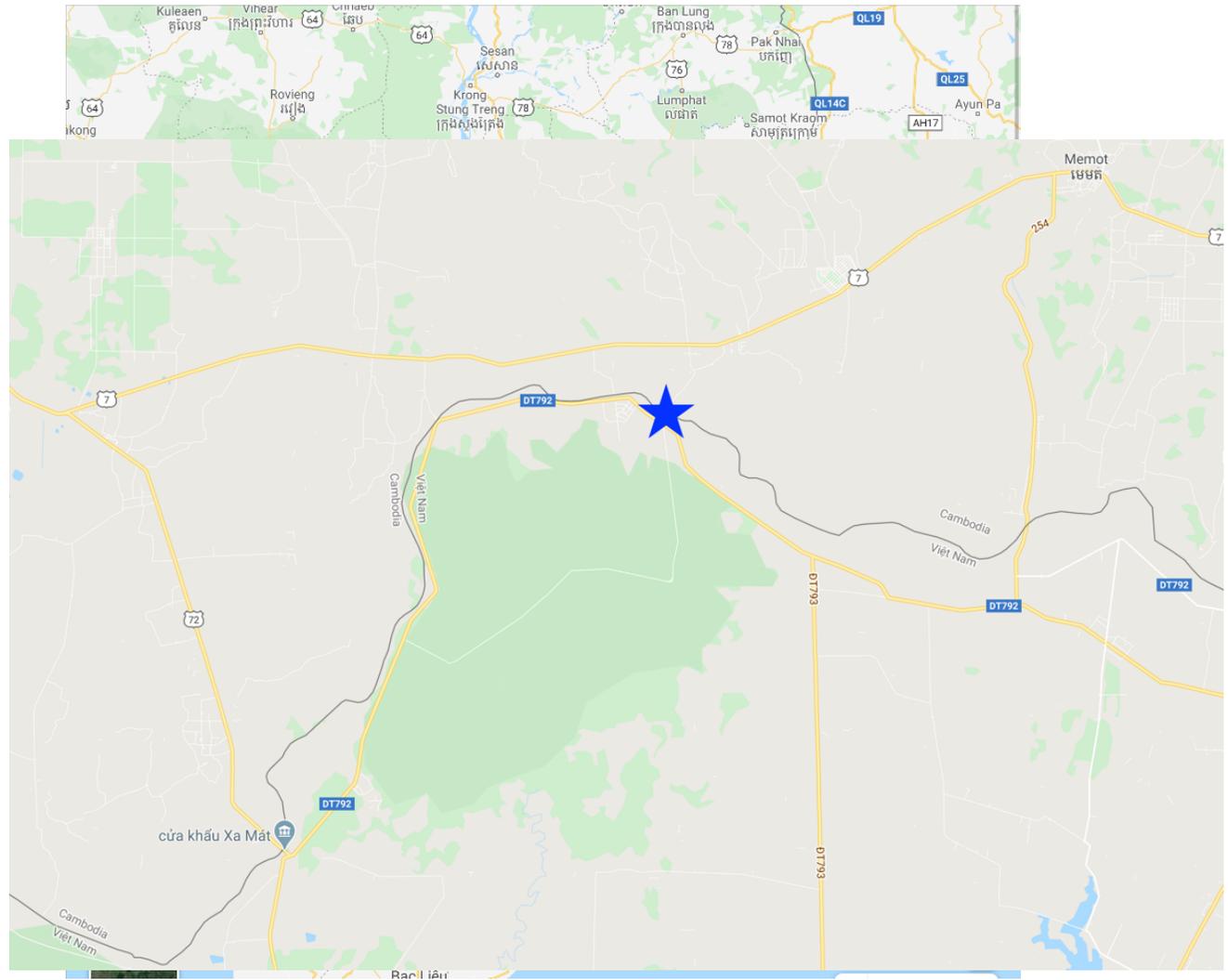
McCallum, J. (1995). National Borders Matter: Canada-U.S. Regional Trade Patterns. *The American Economic Review*, 85(3), 615-623.

Merleverte, B., & Purice, V. (2019). *Border Regimes And Indirect Productivity Effects From Foreign Direct Investment*. Working Papers of Faculty of Economics and Business Administration, Ghent University, Belgium 19/965

CAMBODIA – VIETNAM CASSAVA VALUE CHAIN

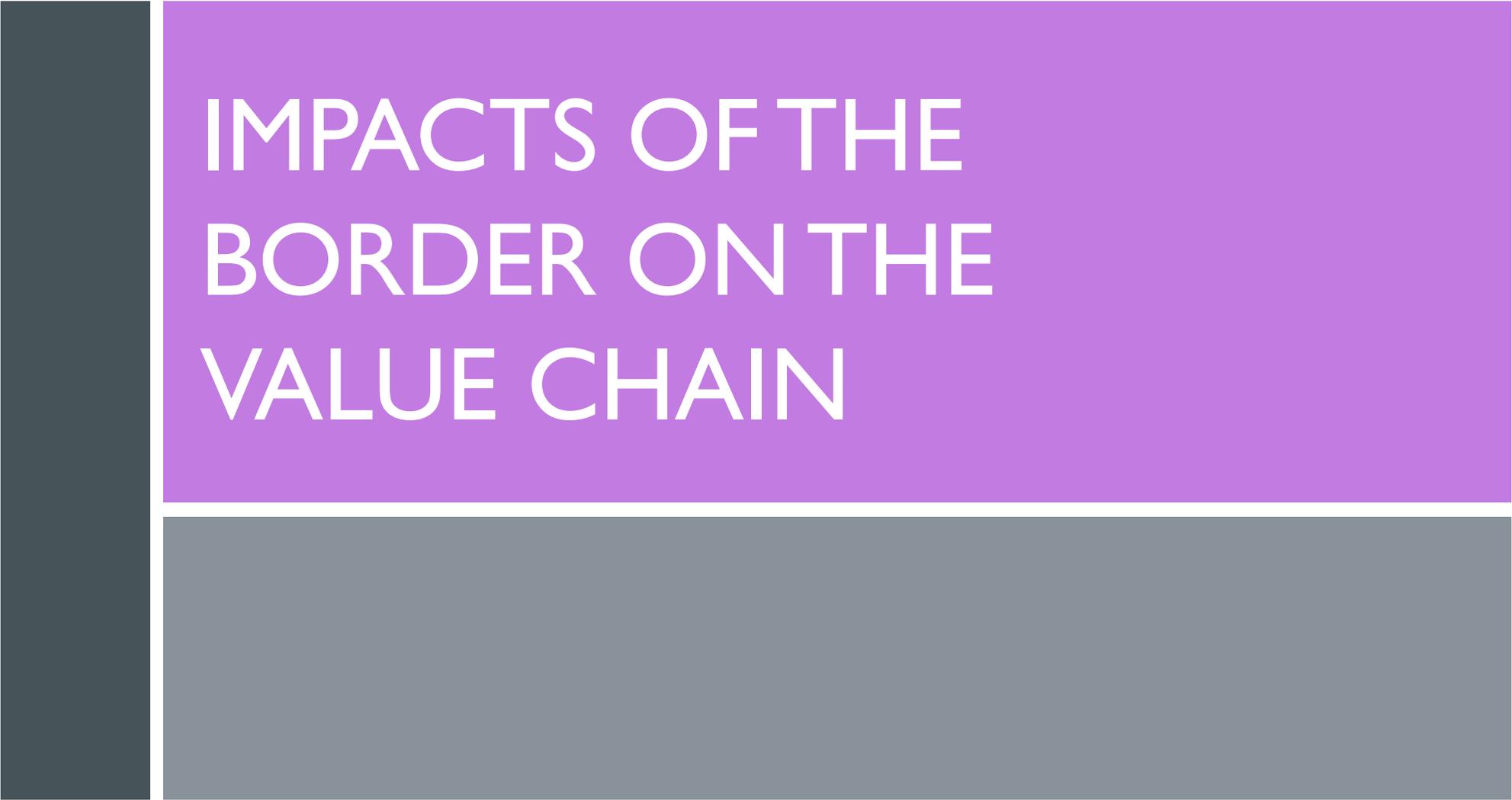


CHANG RIEC BORDER GATE CAMBODIA- VIETNAM





BORDER GATE CHARACTERISTICS:
LOADING AND UNLOADING



IMPACTS OF THE BORDER ON THE VALUE CHAIN

BORDER PRICES IMPACT ON THE AMOUNT OF CASSAVA THAT CAN BE PROCURED

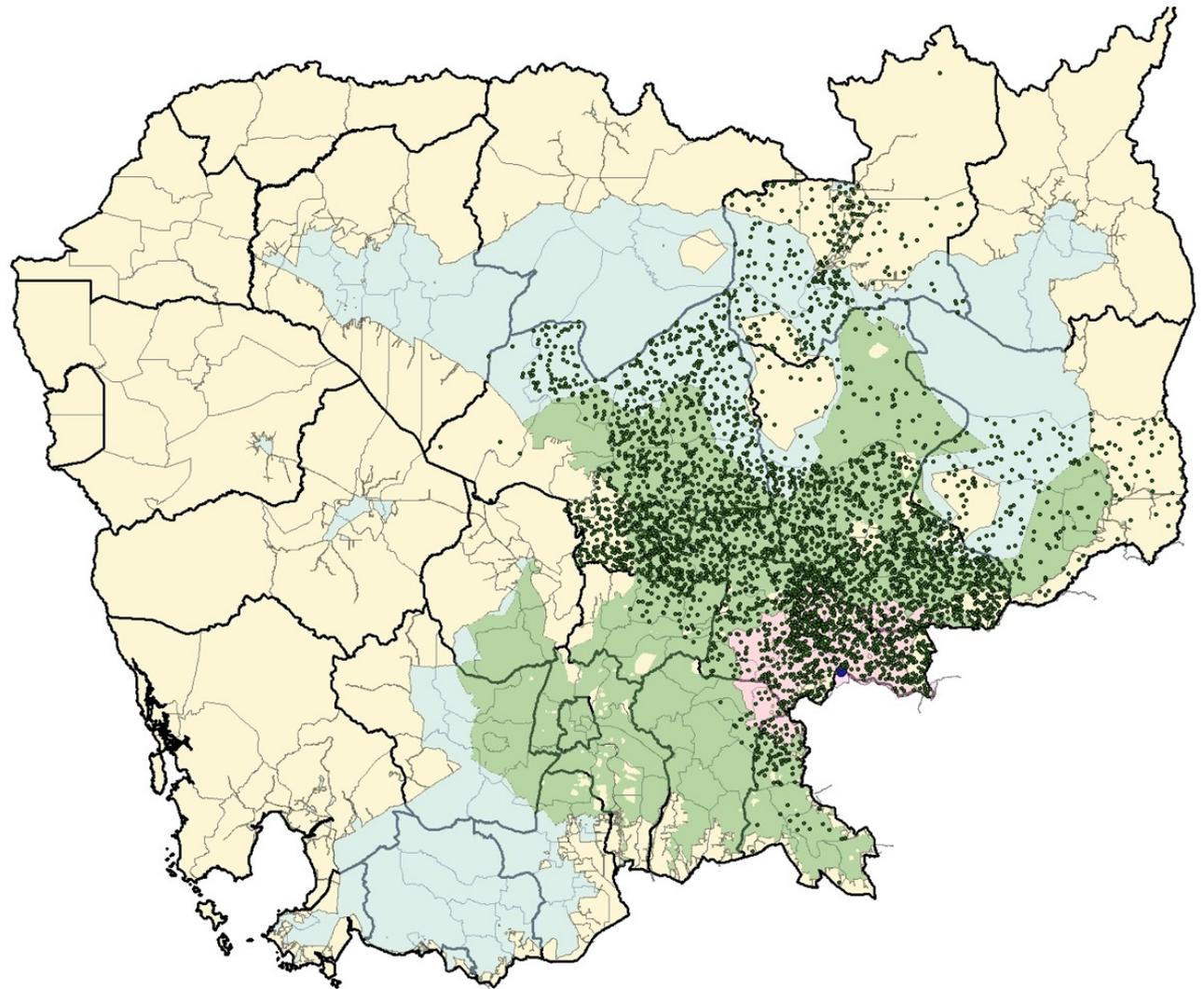
COST OF PRODUCTION
=\$45.80/TON

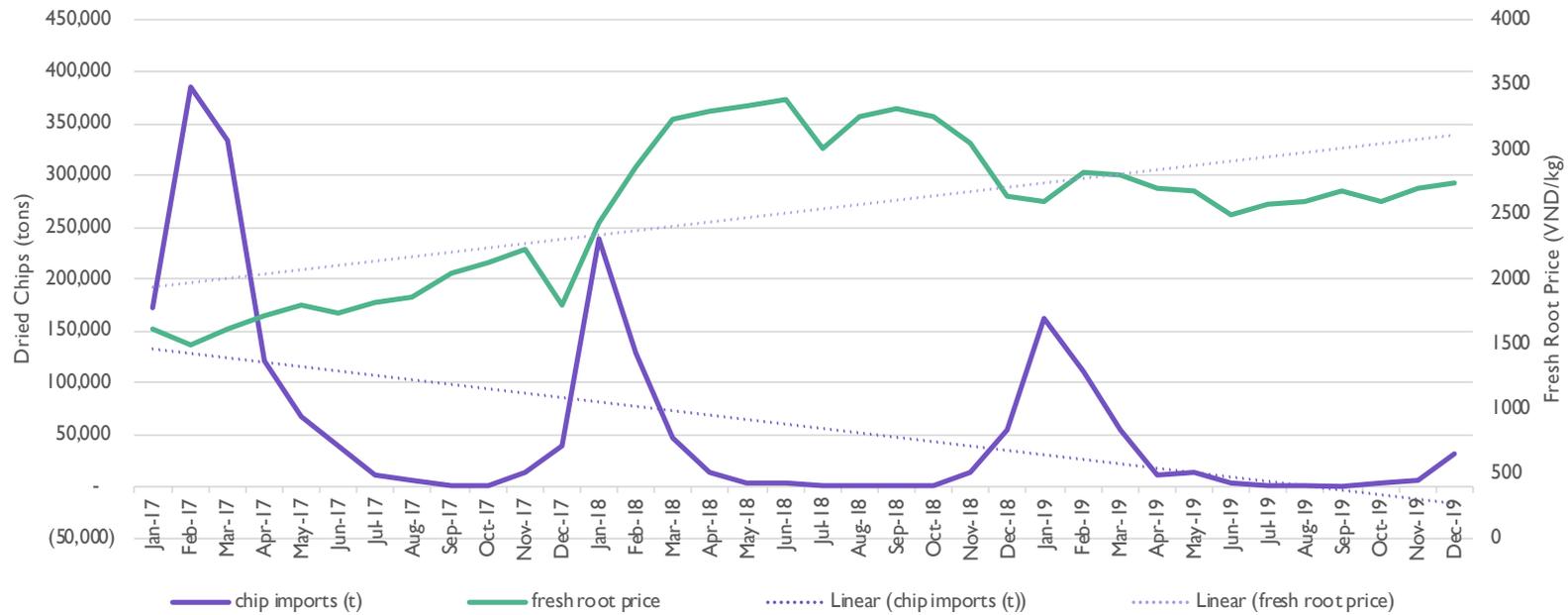
BORDER PRICES

\$60 = 615,000T

\$70 = 1,849,00T

\$80 = 3,389,000T

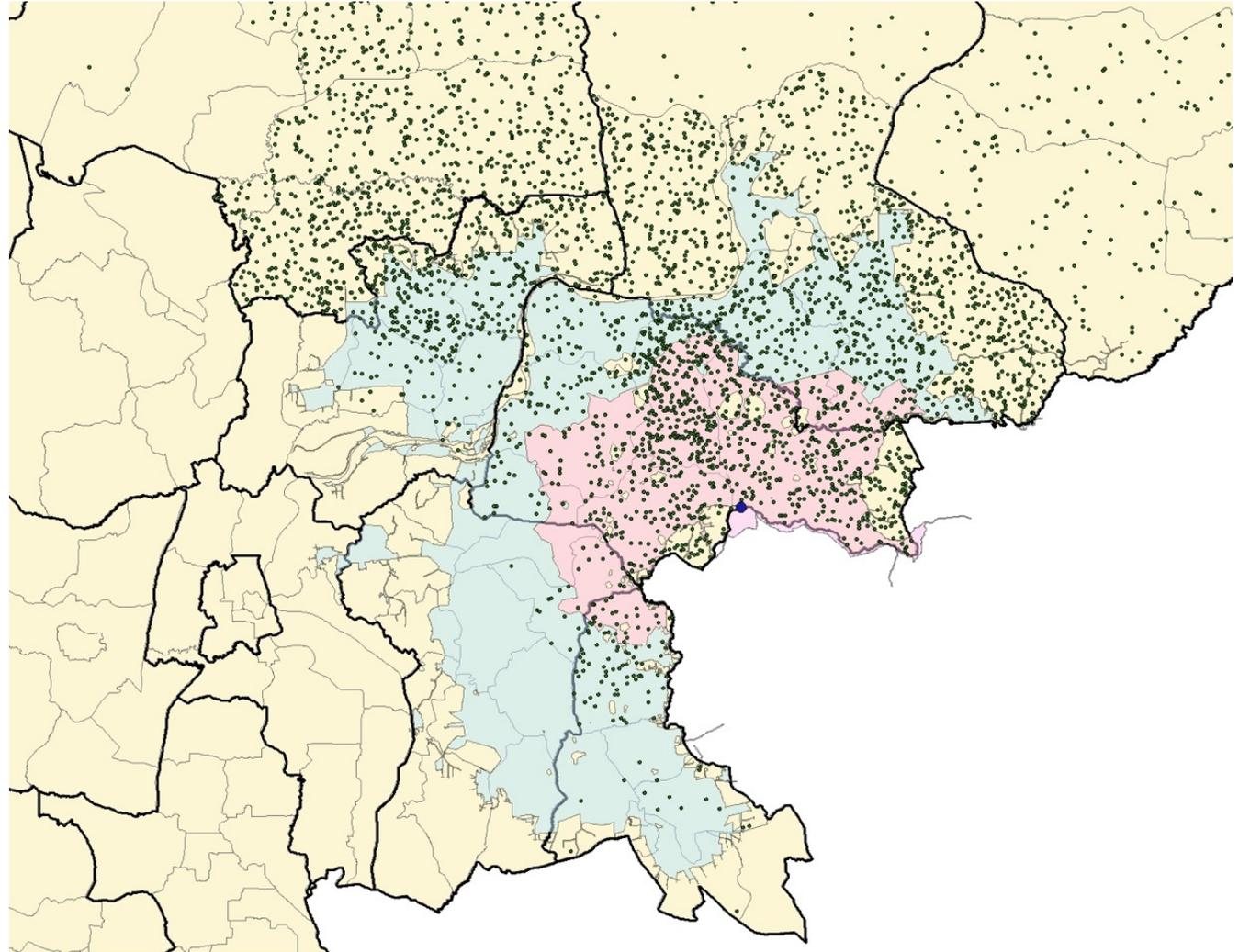




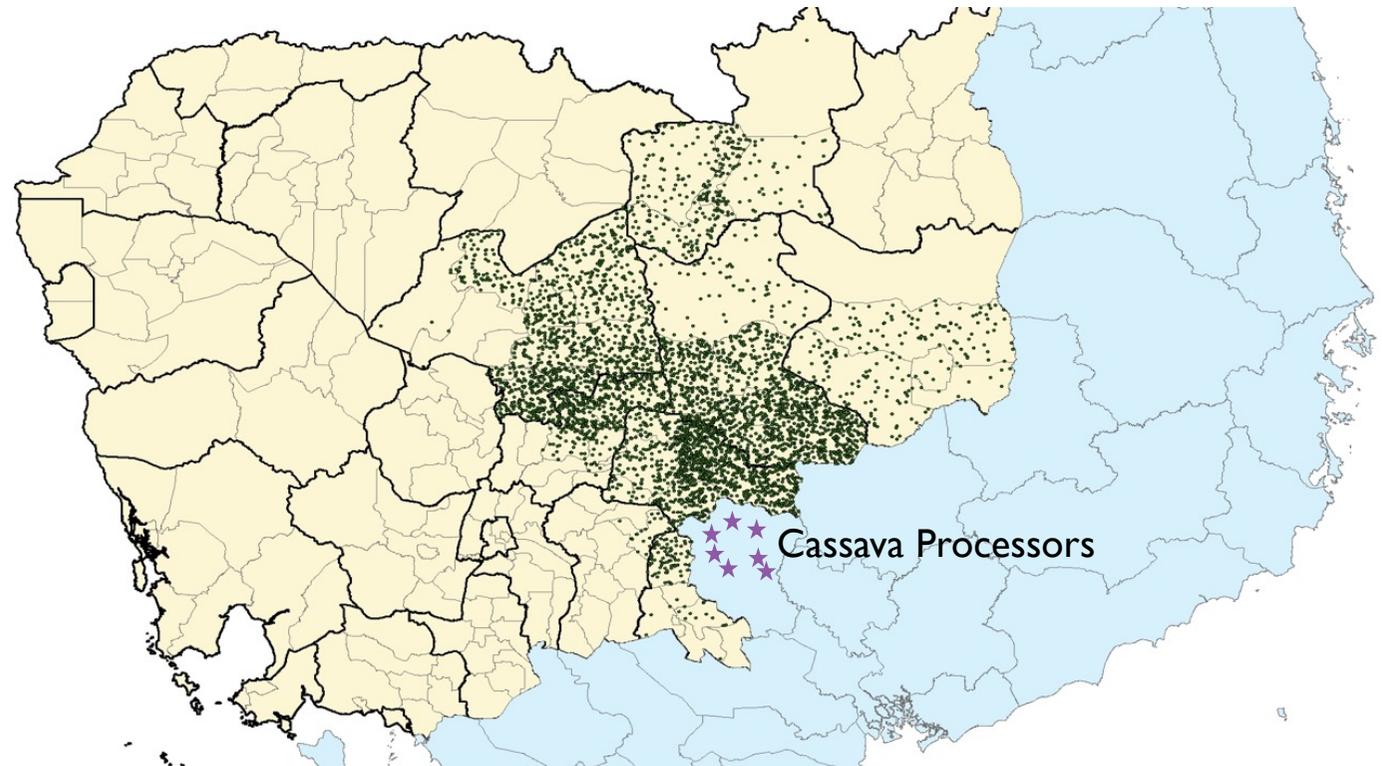
IMPACT OF FRESH ROOT PRICE ON EXPORT OF CHIPS FROM CAMBODIA

IMPACT OF LOADING AND UNLOADING COSTS

- At \$60 border price
- Collection area currently covers 615,000t of production
- If there was no unloading and loading, collection area could be expanded to cover 1,786,000t of production



LACK OF
INVESTMENT
IN
PROCESSING
IN CAMBODIA



LACK OF INVESTMENT IN PROCESSING IN CAMBODIA

Kratie's first cassava processing factory delayed over high costs

Sorn Sarath / Khmer Times

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A local farmer sorts cassava, the second largest agricultural crop in Cambodia after rice. KT/Chor Sokunthea

The cassava processing factory invested in by Hong Kong-based Green Leader



SingSong Factory (Kratie)



LACK OF KNOWLEDGE, INFORMATION FLOW
AND LINKAGES
= NO CONTRACTS AND TECHNOLOGY FLOW

IMPACT OF THE BORDER

- Reduction in the potential collection area of fresh roots
- Instability of collection of fresh roots.
- Reduced price for Cambodian farmers
- Instability and uncertainty around investment
- No contracts or formal links between Vietnamese factories and Cambodian farmer groups
- No backwards spillover effects – technology and information is not flowing from factories to farmers

IMPLICATIONS FOR VALUE CHAIN DEVELOPMENT

- Even in a value chain where a large volume of product is flowing across a border for many years with a consistent set of actors it is still possible that there are limited to no real linkages across the border
- Even in instances where it would seem obvious that there is an incentive for the private sector to support the dissemination of technologies and information, the presence of blocks and breaks in trust and information flow mean that the private sector may not be able to be involved
- Don't assume that a value chain with a border in it will behave the same way as a value chain without a border in it.



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THANK YOU



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