

## Additional file 1

### Tables

**AF1 Table 1 Description of the trading practices for slaughter pigs among slaughterhouses and middlemen**

		Traders in collective slaughterhouses (n=2)	Local slaughterhouses (n=9)	Middlemen (n=5)
<b>Average number of pigs slaughtered or purchased (Min -Max)</b>	<b>Usual days</b>	122 (90-155) per day	14 (2-30) per day	9334 (540-29783) for the 1.5 year study period
	<b>During Tet</b>	155 (125-185) per day	27 (5-75) per day	
<b>Overall percentage of pigs purchased from:</b>	<b>Companies</b>	56.7%	15.4%	25.2%
	<b>Large farms</b>	42.4%	65.2%	43.7%
	<b>Small farms</b>	0.4%	14.6%	24.9%
	<b>Other traders</b>	0.5%	4.8%	6.2%

**AF1 Table 2 Distribution of the farms hiring boars across the farm and network classes**

Class	VB	LB	SB	LF	SF
<b>Isolated farms</b>	-	-	16 (11 ; 5)	-	5 (4 ; 1)
<b>Primary sinks</b>	-	-	-	1 (0 ; 1)	9 (3 ; 6)
<b>Secondary sinks</b>	-	1 (1 ; 0)	1 (0 ; 1)	-	9 (7 ; 2)
<b>Sources</b>	-	-	-	-	-
<b>Total no of farms</b>	<b>0 (0%)</b>	<b>1 (5%)</b>	<b>17 (68%)</b>	<b>1 (7%)</b>	<b>23 (32%)</b>

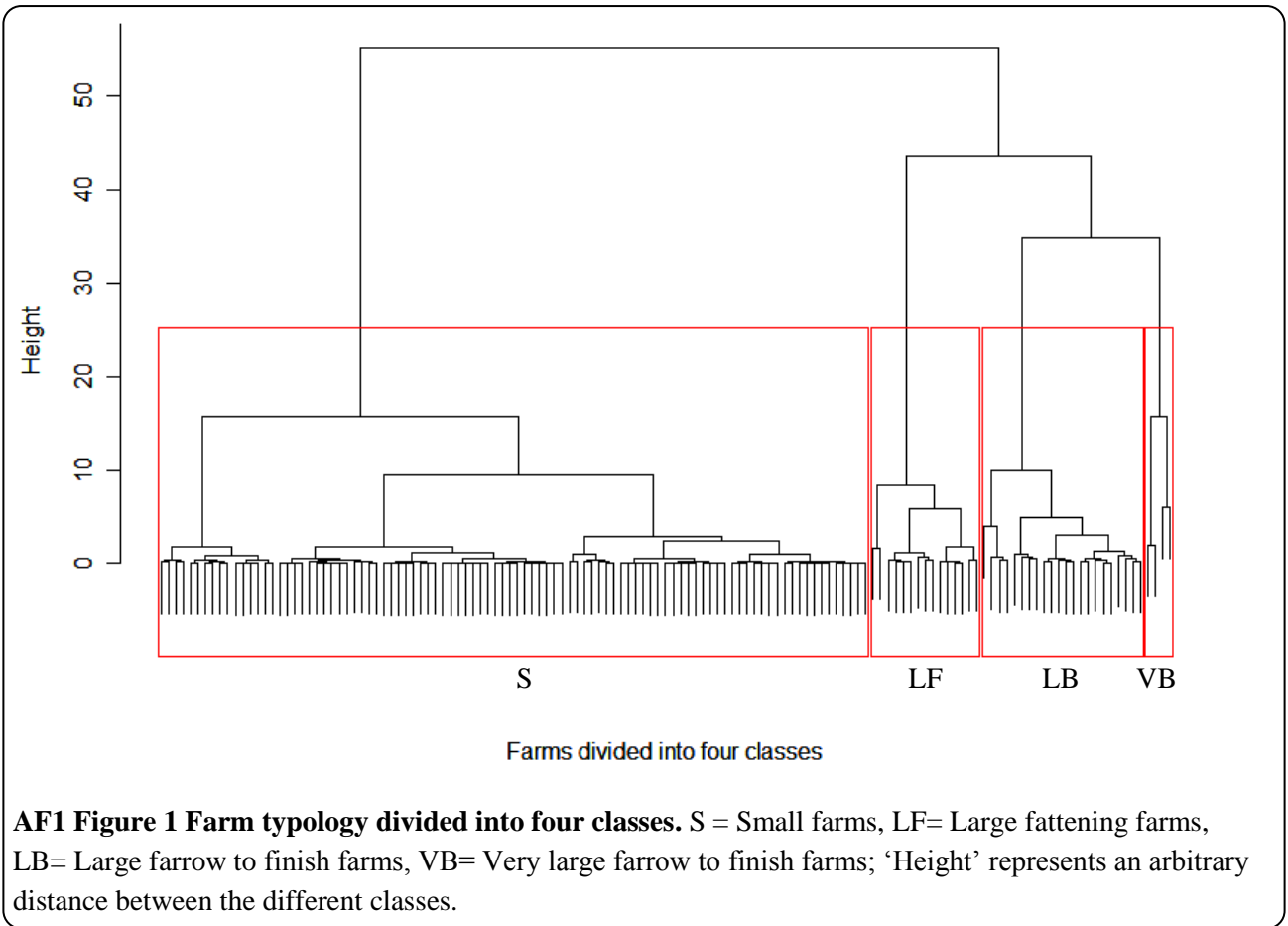
Percentages of farms hiring boars over the total of farms per farm class.

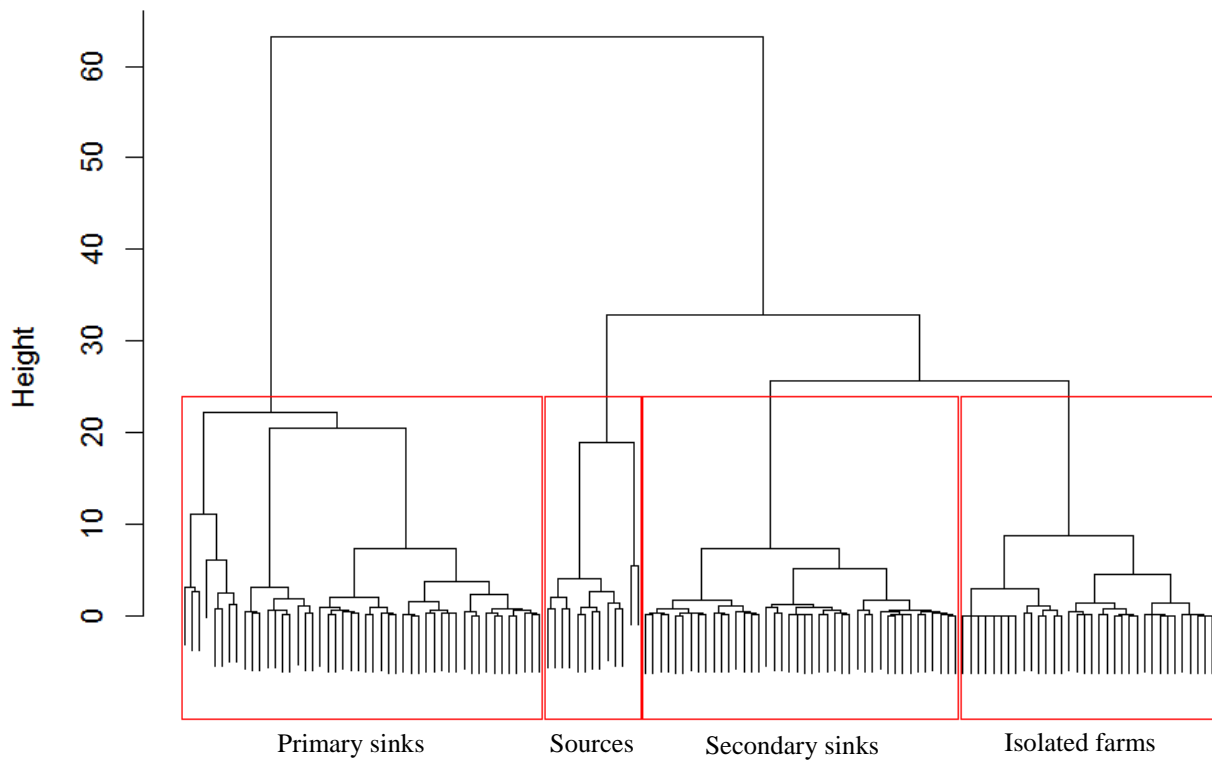
**AF1 Table 3 Median (Min-Max) of the different typology variables for farms involved in boar hiring**

Boar hiring	Class	Out-degree	Trade weighted out-degree	Pig weighted out-degree	In-degree	Trade weighted in-degree	Pig weighted in-degree	Total no of farms
<b>Excluded</b>	<b>Isolated farms</b>	0 (0-4)	0 (0-5)	0 (0-60)	1 (0-1)	1 (0-2)	1 (0-40)	<b>21 (62%)</b>
	<b>Primary sinks</b>	0 (0-0)	0 (0-0)	0 (0-0)	3 (2-5)	5 (3-8)	131 (30-340)	<b>10 (21%)</b>
	<b>Secondary sinks</b>	0 (0-2)	0 (0-2)	0 (0-50)	2 (1-2)	3 (1-5)	39 (7-150)	<b>11 (26%)</b>
<b>Included</b>	<b>Isolated farms</b>	1 (1-5)	10 (1-50)	12 (1-87)	2 (1-3)	10 (1-45)	14 (1-52)	<b>21 (62%)</b>
	<b>Primary sinks</b>	1 (1-2)	18 (4-60)	18 (4-60)	4 (3-6)	24 (8-65)	142 (38-370)	<b>10 (21%)</b>
	<b>Secondary sinks</b>	1 (1-3)	10 (1-45)	10 (1-68)	3 (2-4)	11 (3-49)	51 (18-175)	<b>11 (26%)</b>

Percentages of farms hiring boars over the total of farms per network class.

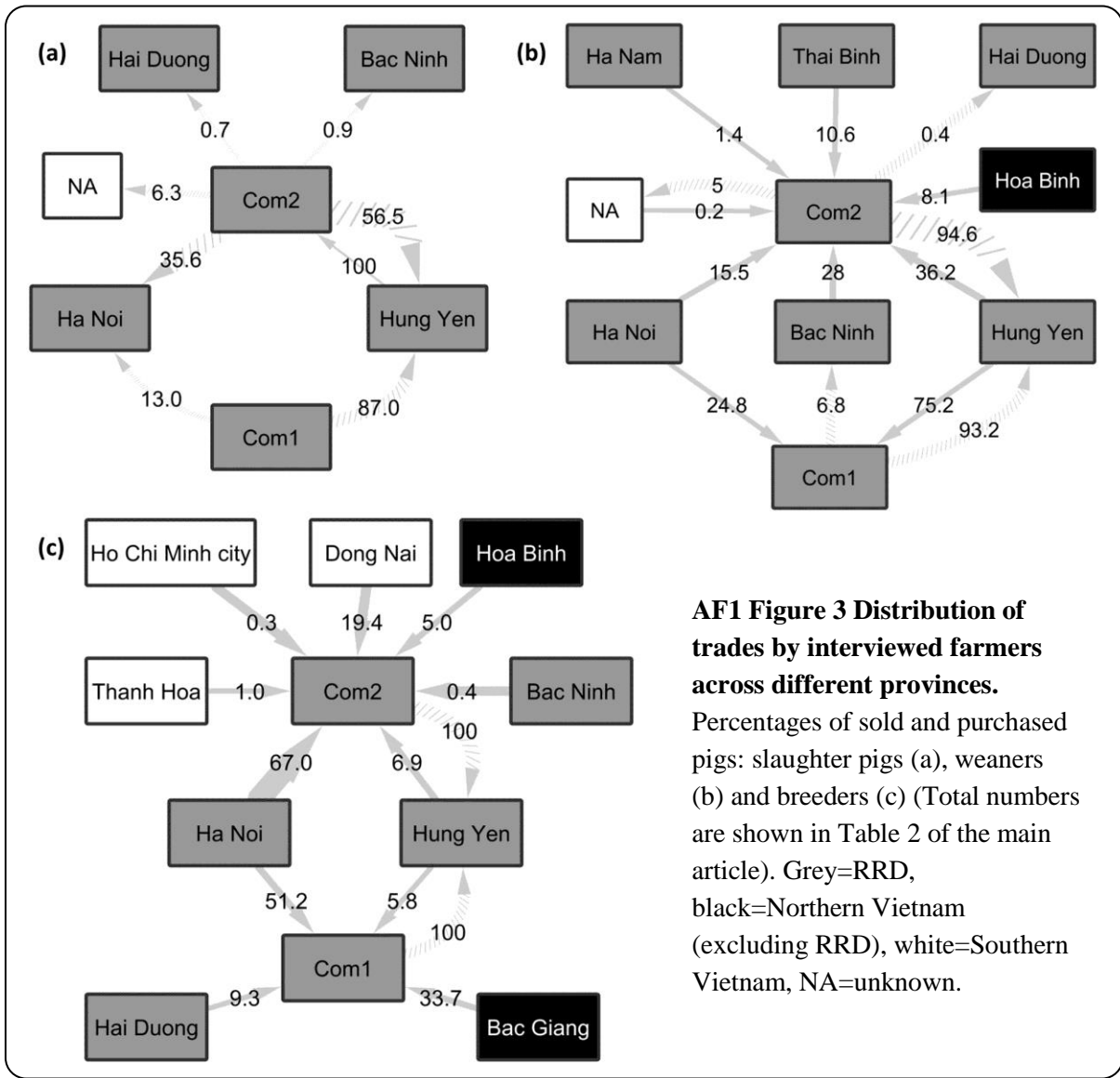
## Figures



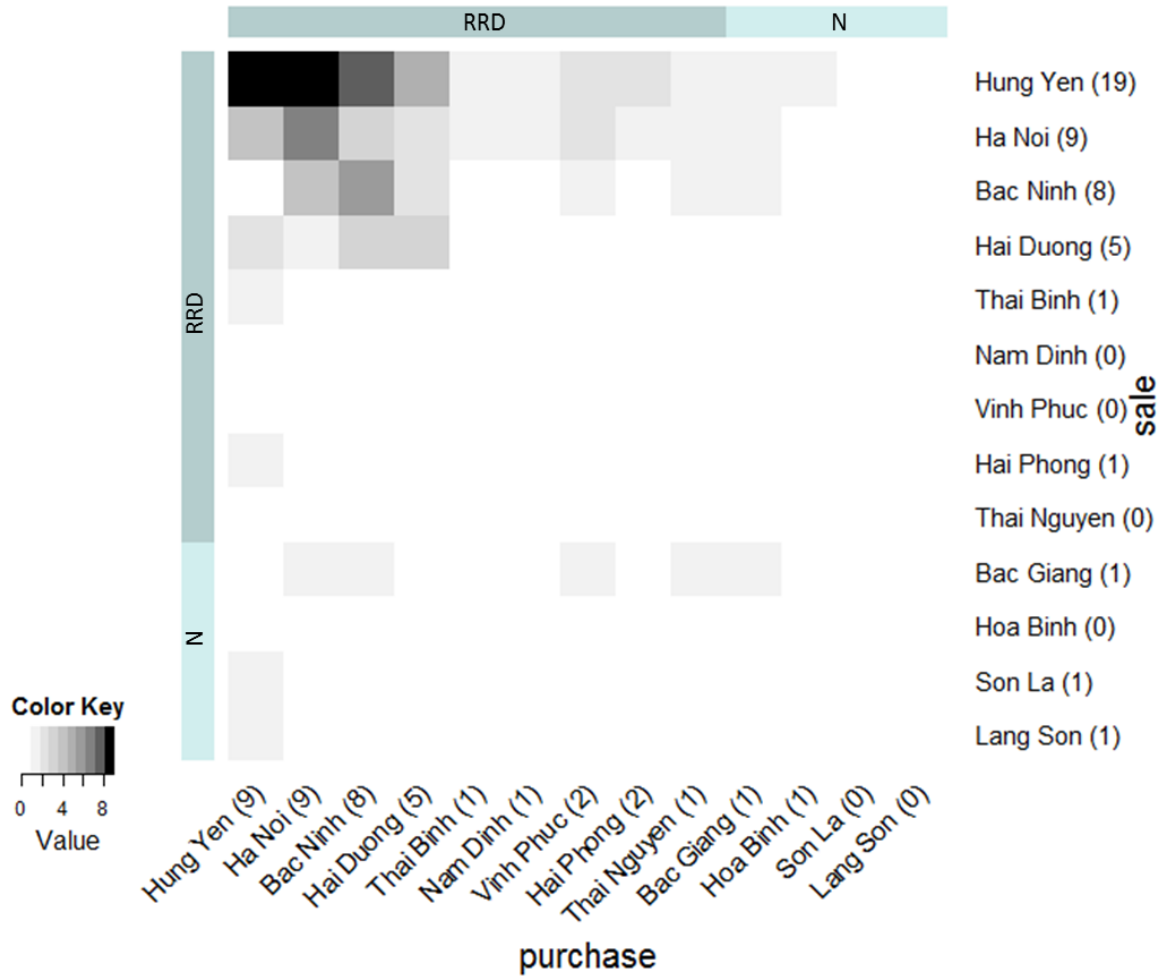


Farms divided into four classes

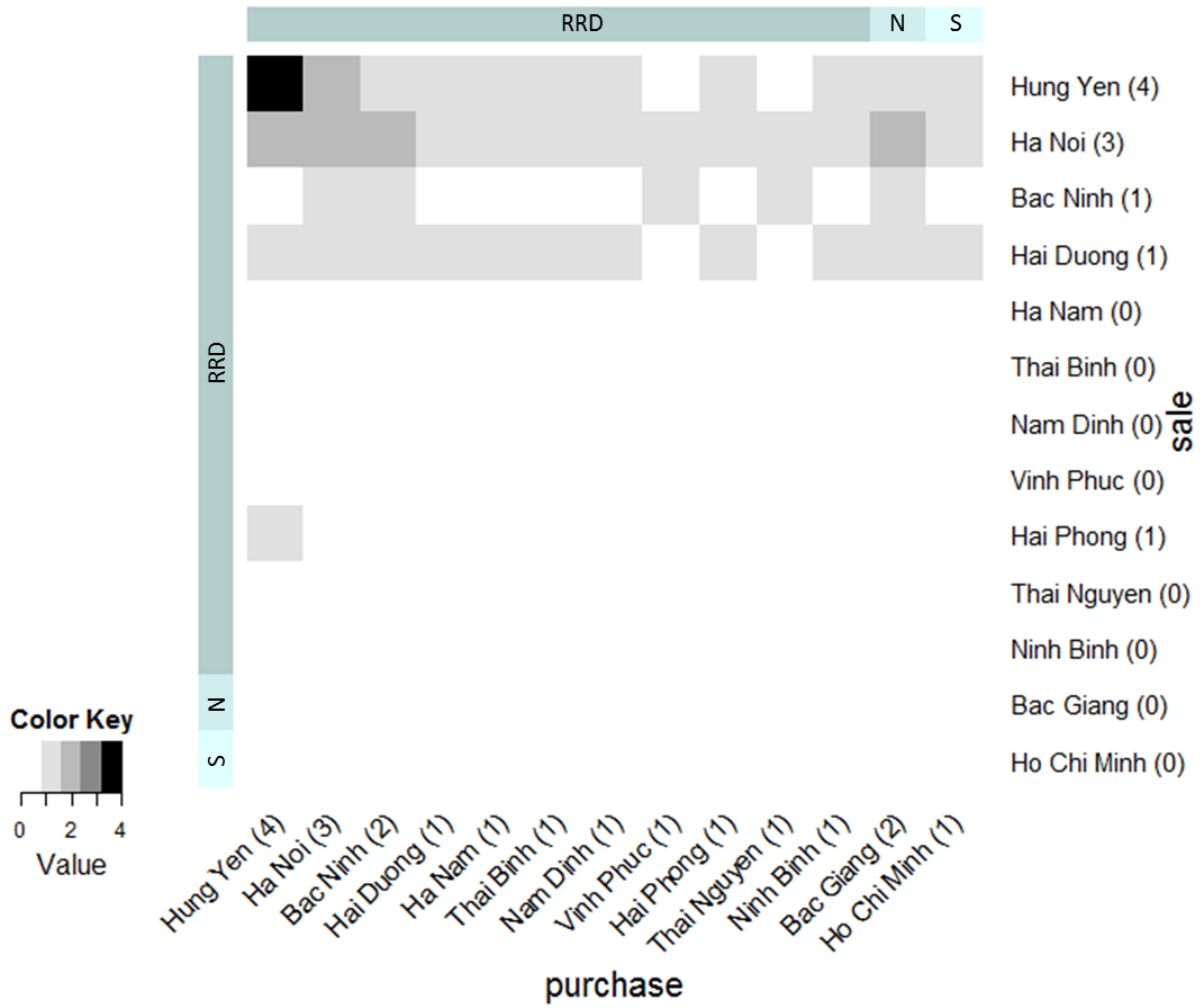
**AF1 Figure 2 Network typology divided into four classes.** ‘Height’ represents an arbitrary distance between the different classes.



**AF1 Figure 3 Distribution of trades by interviewed farmers across different provinces.** Percentages of sold and purchased pigs: slaughter pigs (a), weaners (b) and breeders (c) (Total numbers are shown in Table 2 of the main article). Grey=RRD, black=Northern Vietnam (excluding RRD), white=Southern Vietnam, NA=unknown.



**AF1 Figure 4 Number of middlemen and market traders (N=19) purchasing and selling weaners in different provinces.** Province name (total number of middlemen who mentioned the province); RRD= Red River Delta, N=North; For a trader (i), with  $A_i$ =provinces cited for purchase and  $B_i$ =provinces cited for sales,  $\text{Median}[(A_i \cap B_i)/(A_i \cup B_i)]=0.5$ .



**AF1 Figure 5 Number of middlemen (N=5) purchasing and selling fattening pigs in different provinces.** Province name (total number of middlemen who mentioned the province); RRD=Red River Delta, N=North; For a trader (i), with  $A_i$ =provinces cited for purchase and  $B_i$ =provinces cited for sales,  $\text{Median}[(A_i \cap B_i)/(A_i \cup B_i)]=0.4$ .