



ONLINE & COLLABORATIVE DATABASE
EFICAS PROJECT

USER DOCUMENTATION



European Union



CONTEXT

The database integrate baseline and monitoring data collected by the EFICAS project and other research and rural development projects active in Laos. This database allows to:

- enhance the compatibility of the datasets produced by various projects;
- capitalize in the longer term data collected by various projects in different localities;
- facilitate reporting to project donors and partners;
- constitute a core component of a multi-stakeholder platform on rural resilience to climate change.

PLAN

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I. Overview of PostgreSQL

Database is host on a distant PostgreSQL server and is accessible from all computers with internet connection using pgAdmin interface presented just below. People who want to connect to the database has to have access rights.

PostgreSQL is an object relational database management system (ORDBMS), open source and free which aim is to store and analysis data using SQL language.

To manage geographical (spatial) component of PostgreSQL database, PostGIS plugin is installed and allow to make possible use of PostgreSQL database by GIS.

pgAdmin is a graphical interface for administration and development dedicated to PostgreSQL. pgAdmin allows to support all PostgreSQL features and makes administration easy.

1. Access to the database

a. Install of PostgreSQL and pgAdmin

- Download the software through the link below:
<http://www.postgresql.org/download/windows/> (for Windows OS)¹



1.Run the executable



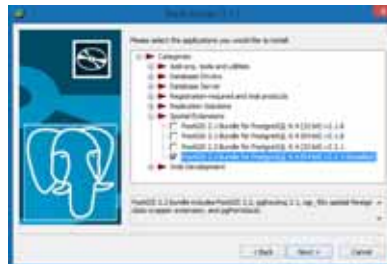
2.Launch Stake Builder installation (PostgreSQL setup wizard)



3.Complete the Stake Builder installation



4.Select the software to install



5.Select installation of Spatial Extensions PostGIS



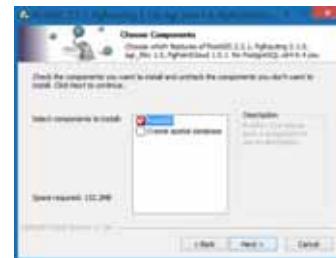
6.Select the download directory



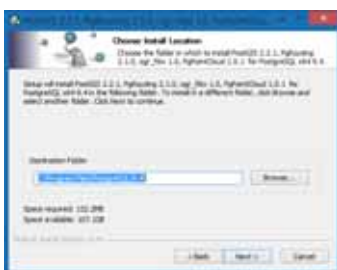
7.Start installations



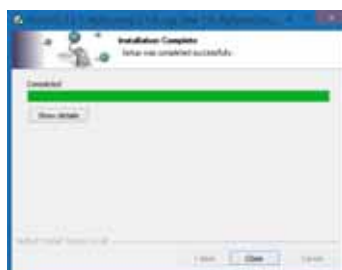
8.Validate license agreement



9.Launch PostGIS installation



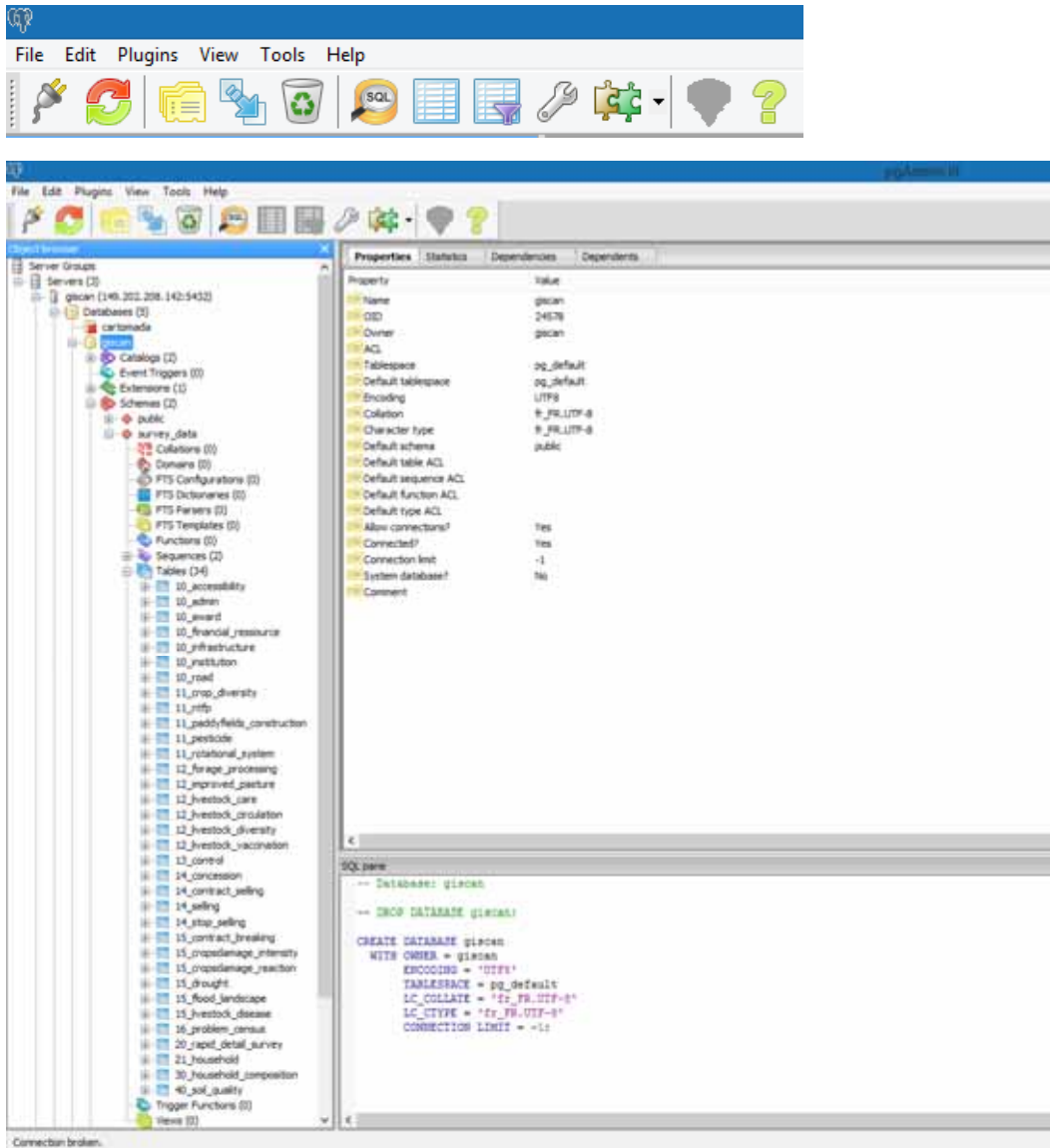
10.Choose destination folder



11.PostgreSQL and PostGIS extensions are now installed

¹ <http://www.postgresql.org/download/> (for all OS)

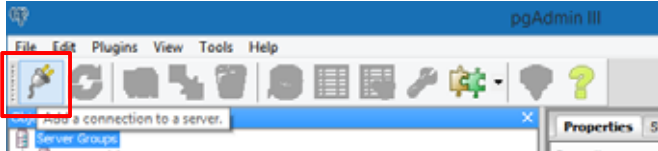
b. Overview of pgAdmin



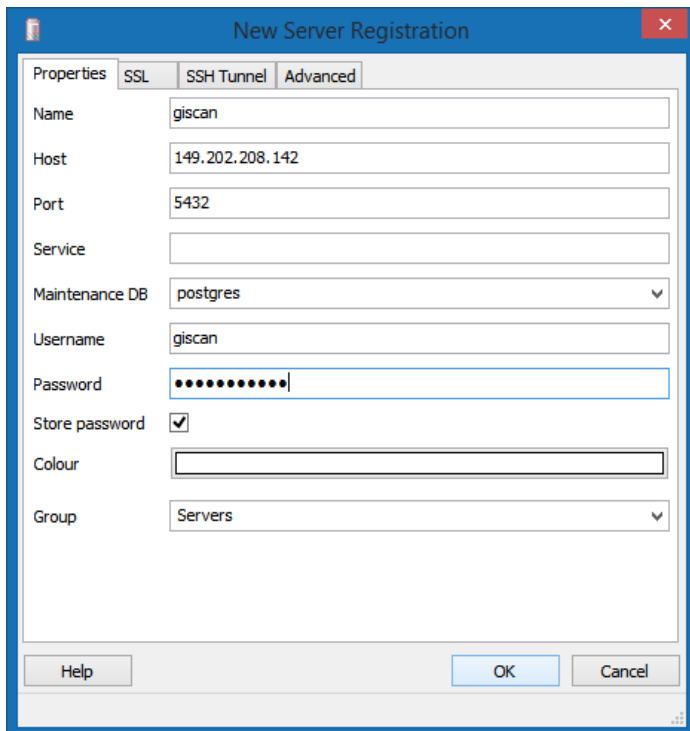
c. Connection to the server

Add a connection to the server

Launch pgAdmin III and click on the ‘connection tool’ of the pgAdmin toolbar.

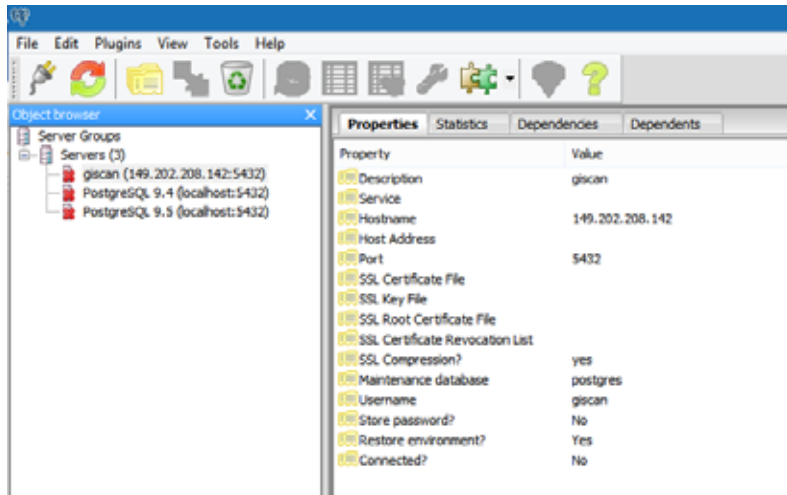


Fill in ‘new server registration’ windows with the following parameters. Only people which have password is allowed to connect to the server.

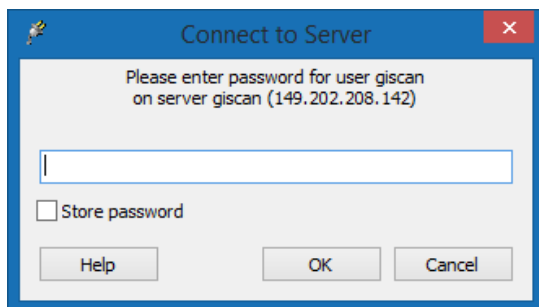


Connect to the server

Click on the 'giscan (149.202.208.142:5432)' server on 'object browser' window.

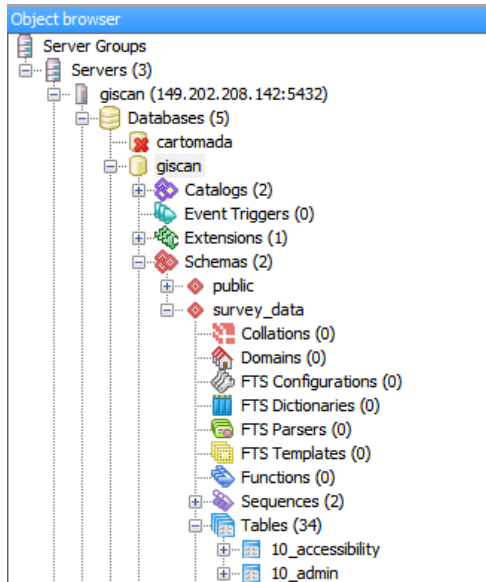


Input your password.



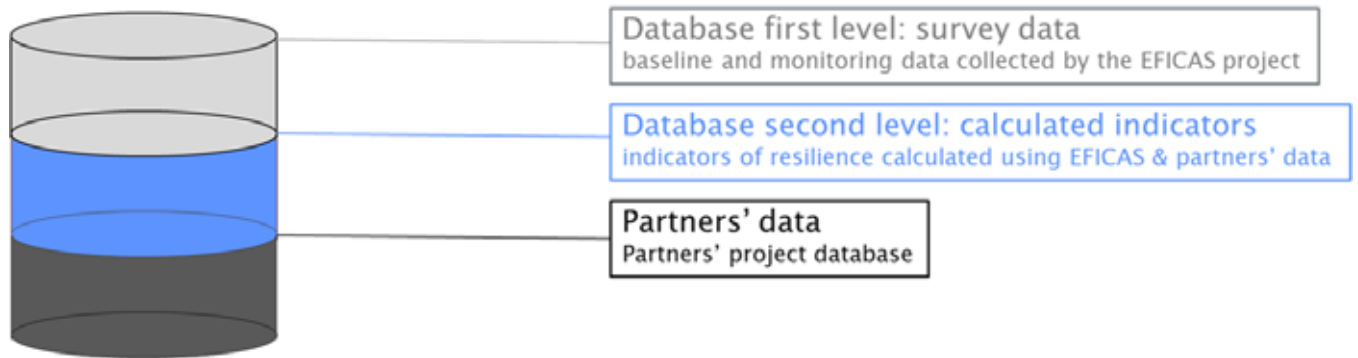
d. Connection to the database

Select 'giscan' database on 'Object browser' window.



II. Presentation of data included on EFICAS database

The database is structured around three levels of information as shown in the diagram below.



graph: composition of GISCAN database

1. Database first level: baseline and monitoring data

EFICAS project’s baseline is composed of socio-economic baseline and bio-physical baseline.

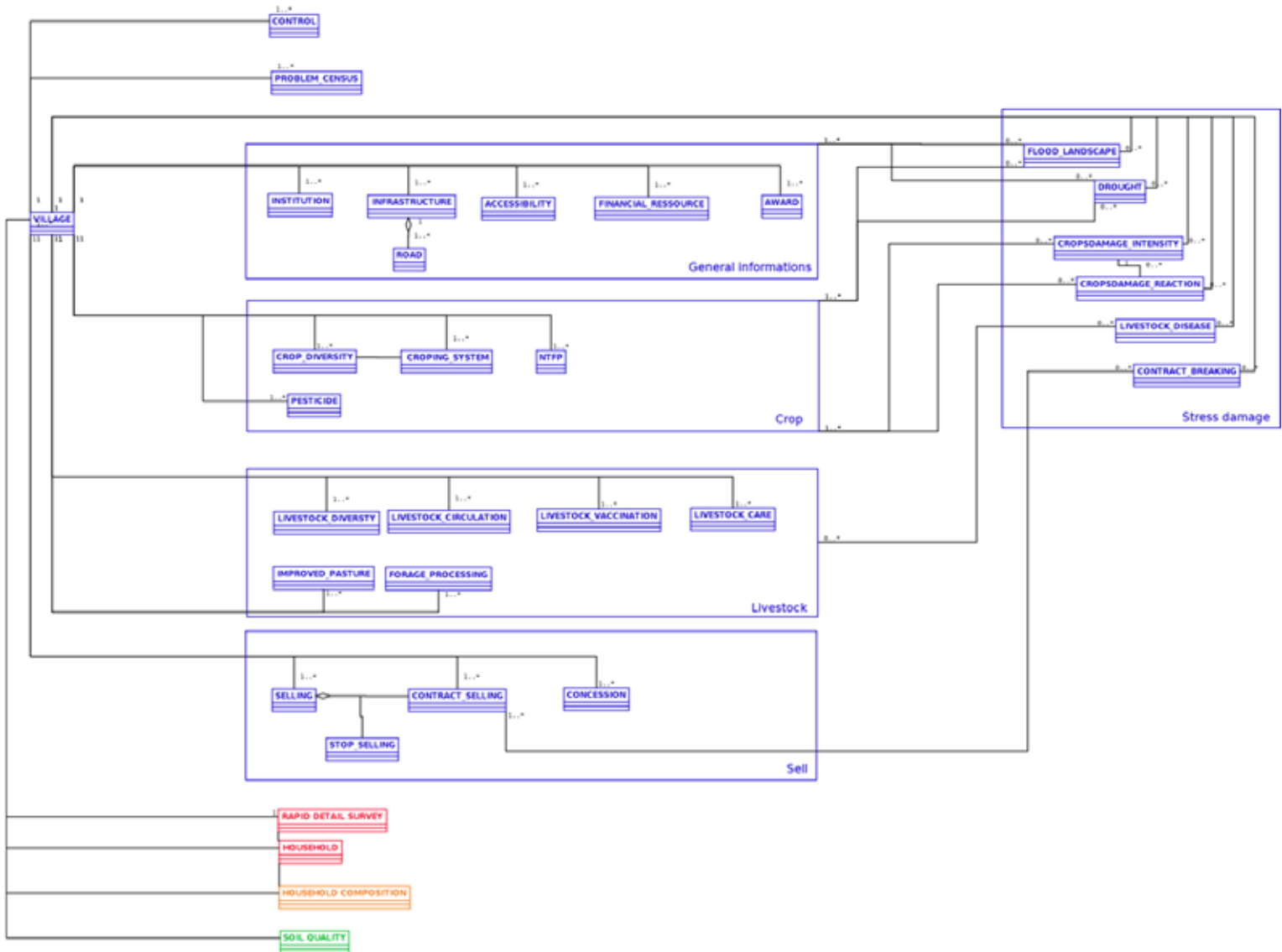
Socio-economic baseline includes data which allows to calculate indicators about capacities, vulnerability and agricultural intensification. Complementary to this socio-economic baseline, the bio-physical baseline allows to create indicators about soil quality, water availability and quality and biodiversity.

Data were collected in different groups which are described on the table below.

Name	Description
Focus group 'village history'	about 10 persons, including members of the elder committee who are knowledgeable about the history of the village
Focus group 'general Information'	naiban, and any other villager likely to provide the needed information: vice-head, teachers, members of elder-committee, etc.
Focus group 'cropping system'	about 15 farmers, men and women, as diverse as possible: rich, poor, people growing cash crops, members of big household and small household, people hiring labor-force, etc.
Rapid survey	all households are surveyed.
Detailed Survey	30 households. The list of these 30 households has to be random: random selection from naiban's list of all the HH in the village.
Focus group 'livestock system'	about 15 farmers, men and women, all raising at least one animal species: buffaloes, cows, pigs or goats.
Focus group 'Problem census Women'	10 to 12 women, of all categories (young, old, rich, poor, etc.)
Focus group 'Problem census Men'	10 to 12 men, of all categories (young, old, rich, poor, etc.)
Focus group 'Sales and Contracts'	10 to 15 villagers, who sell (or used to sell) some production: cash crop, animals, NTFPs, etc.

table: groups of data collection

Data included on database had been collected at four different scales (village, household, individual and plot scales). For each scale, data is organized in several topics (for example at village scale, there is crop topic, sell topic, etc.).



graph: database model (UML)

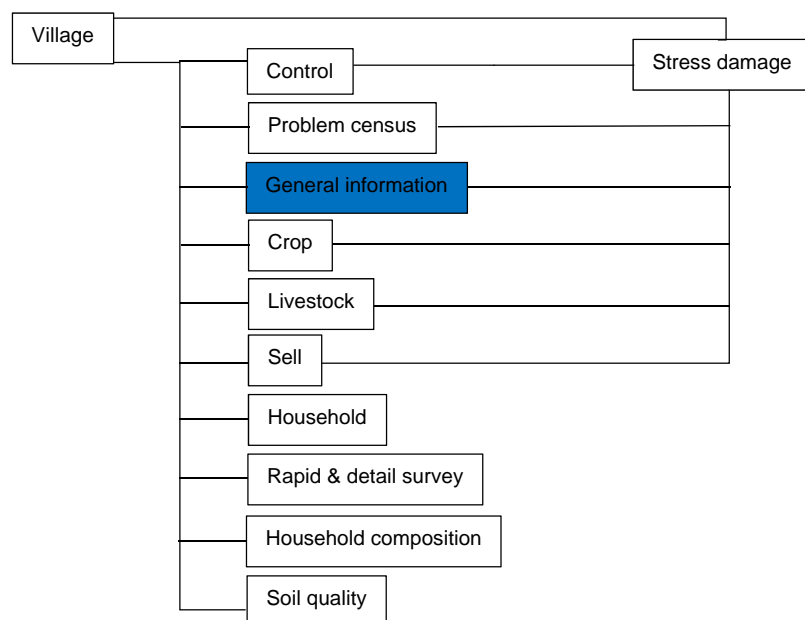
For each scale and each topic, data are organized in several tables witch are described on the table below.

scale_id	scale	topic_id	topic	table
1	Village scale	10	village general information	10_accessibility
				10_admin
				10_award
				10_financial_ressource
				10_infrastructure
				10_institution
		11	crop	11_crop_diversity
				11_ntfp
				11_paddyfields_construction
				11_pesticide
				11_rotational_system
		12	livestock	12_forage_processing
				12_improved_pasture
				12_livestock_care
				12_livestock_circulation
				12_livestock_vaccination
13	control	13_control		
14	sell	14_concession		
		14_contract_selling		
		14_selling		
		14_stop_selling		
15	stress damage	15_contract_breaking		
		15_cropsdamage_intensity		
		15_cropsdamage_reaction		
		15_drought		
		15_flood_landslide		
15	stress damage	15_livestock_disease		
16	problem census	16_problem_census		
2	Household scale	20	rapid and detail survey	20_rapid_detail_survey
		21	household	21_household
3	Individual scale	30	household composition	30_household_composition
4	Plot scale	40	soil quality	40_soil_quality

table: organization of database according to different scales and different thematics

a. Village scale data

General information theme: data presentation



village - general_informations	
nb tables: 7	nb fields: 103

able: general information data overview

10_ACCESSIBILITY		
nb columns: 9		
Name	Data type	Comments
acc_village_name	character varying	
acc_village_id	integer	
acc_year	integer	year of the survey
acc_bymotorbike_rainyseason	boolean	village accessible by motorbike during rainy season (TRUE or FALSE) -- source: focus group 'general information'
acc_bymotorbike_dryseason	boolean	village accessible by motorbike during dry season (TRUE or FALSE) -- source: focus group 'general information'
acc_bycar_rainyseason	boolean	village accessible by car during rainy season (TRUE or FALSE) -- source: focus group 'general information'
acc_bycar_dryseason	boolean	village accessible by car during dry season (TRUE or FALSE) -- source: focus group 'general information'
acc_bytruck_rainyseason	boolean	village accessible by truck during rainy season (TRUE or FALSE) -- source: focus group 'general information'
acc_bytruck_dryseason	boolean	village accessible by truck during dry season (TRUE or FALSE) -- source: focus group 'general information'

10_ADMIN		
nb columns: 8	names, codes and geometry of the principal divisions of Laos	
Name	Data type	Comments
adm_province_name	character varying	
adm_province_id	integer	source: laodecide
adm_district_name	character varying	
adm_district_id	integer	source: laodecide
adm_village_name_en	character varying	
adm_village_name_lao	character varying	
adm_village_id	integer	source: laodecide
adm_village_nb_hh	integer	number of households in the village -- source: focus group 'general information'

10_AWARD		
nb columns: 4	village award	
Name	Data type	Comments
aw_village_name	character varying	
aw_village_id	integer	
aw_village_year	integer	year of the survey
aw_type	character varying	type of award: 3 good competition / all hh heads finished primary school / all hh heads finished secondary school / cleaned-village / cultural / developed-village / good women union / healthy / no crime - no case / secured village / stopped shifting cultivation / strength party / strength-youth / -- source: focus group 'general information'
aw_year_awarded	integer	year the village obtained the award (for the first time) -- source: focus group 'general information'

10_FINANCIAL_RESSOURCE		
nb columns: 12	all possible credit sources of the village	
Name	Data type	Comments
fr_village_name	character varying	
fr_village_id	integer	
fr_year	integer	year of the survey
fr_project_type	character varying	type of fund project: village fund: organized by villagers themselves, or still operational fund after project completion / project managed fund: village fund under project management / rice bank: borrow in kind - rice / livestock bank: Borrow cows, then get calves and give female livestock to other HH / micro-credit system: microcredit institution or project managed / public bank: Nayobay, Development bank, etc. / private bank: private banks / -- source: focus group 'general information'
fr_project_name	character varying	name of fund project -- source: focus group 'general information'
fr_project_id	integer	
fr_year_creation	integer	date of fund project creation -- source: focus group 'general information'
fr_total_amount	real	total amount of the fund (MLAK) -- source: focus group 'general information'
fr_maximum_credit	real	maximum credit (MLAK) ; 9999999 if unlimited -- source: focus group 'general information'
fr_interests	real	interests (%) -- source: focus group 'general information'
fr_credit_duration	real	credit duration (years) -- focus group: 'general information'
fr_still_functionning	boolean	is fund project still fonctionning ? (TRUE or FALSE) -- source: focus group 'general information'

10_INSTITUTION		
nb columns: 10		
Name	Data type	Comments
ins_village_name	character varying	
ins_village_id	integer	
ins_year	integer	year of the survey
ins_nb_medical_workers	boolean	is there medical workers in the village? (TRUE if yes, FALSE if no) -- source: focus group 'general information'
ins_nb_members_committee	integer	total number of members in the village organization committee -- source: focus group 'general information'
ins_nb_members_committee_wom	integer	number of women in the village organization committee -- source: focus group 'general information'
ins_collective_labour_a	integer	collective labour a: fixing & cleaning the village road (man-days/year) -- source: focus group 'general information'
ins_collective_labour_b	integer	collective labour b: cleaning the village and school (man-days/year) -- source: focus group 'general information'
ins_collective_labour_c	integer	collective labour c: fixing/cleaning the water adduction system (man-days/year) -- source: focus group 'general information'
ins_collective_labour_d	integer	collective labour d: other collective works (man-days/year) -- source: focus group 'general information'

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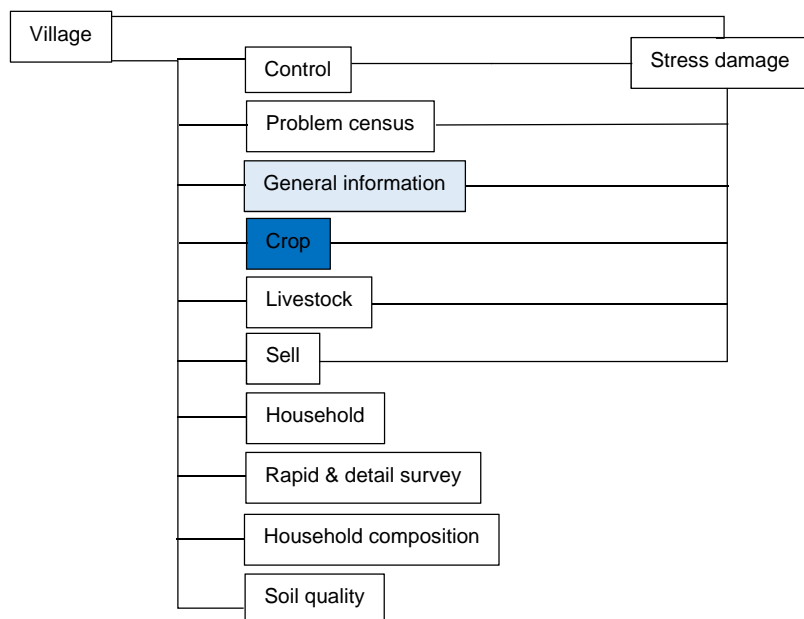
10_ROAD		
nb columns: 25	roads to production areas	
Name	Data type	Comments
road_village_name	character varying	
road_village_id	integer	
road_year	integer	year of the survey
road_name	character varying	name of the road -- source: focus group 'village history'
road_id	integer	
road_length	real	length of the road (km) -- source: focus group 'village history'
road_price	real	total price of the road (MLAK) -- source: focus group 'village history'
road_year_construction	integer	year of road construction -- source: focus group 'village history'
road_payer_a	boolean	villagers themselves paid for the road (TRUE or FALSE) -- source: focus group 'village history'
road_payer_b	boolean	private company paid for the road (TRUE or FALSE) -- source: focus group 'village history'
road_payer_c	boolean	government paid for the road (TRUE or FALSE) -- source: focus group 'village history'
road_payer_d	boolean	development project paid for the road (TRUE or FALSE) -- source: focus group 'village history'
road_payer_e	boolean	both villagers and company paid for the road (TRUE or FALSE) -- source: focus group 'village history'
road_payer_f	boolean	they spent village fund as addition to money collected from each household (TRUE or FALSE) -- source: focus group 'village history'
road_nbyears_reimbursement	real	number of reimbursement years (9999999 if unlimited) -- source: focus group 'village history'
road_interests_reimbursement	real	reimbursement interests -- source: focus group 'village office'
road_nb_hh_benefits_road	integer	number of households benefit from road -- source: focus group 'village history'
road_all_hh_contribution	boolean	all households contribute to pay the road (TRUE or FALSE) -- source: focus group 'village history'
road_all_hh_same_amount	boolean	all households pay the same amount (TRUE or FALSE) -- source: focus group 'village history'
road_amountpaid_criterion_a	boolean	amount paid criterion: richness of the household (TRUE or FALSE) -- source: focus group 'village history'
road_amountpaid_criterion_b	boolean	amount paid criterion: vehicles they own (TRUE or FALSE) -- source: focus group 'village history'
road_amountpaid_criterion_c	boolean	amount paid criterion: total labor force or number of members (TRUE or FALSE) -- source: focus group 'village history'
road_amountpaid_criterion_d	boolean	amount paid criterion: contract with trader (TRUE or FALSE) -- source: focus group 'village history'
road_amountpaid_criterion_e	boolean	amount paid criterion: only the household having plots in the area of the road (TRUE or FALSE) -- source: focus group 'village history'
road_amountpaid_criterion_f	boolean	amount paid criterion: based on production less or much (TRUE or FALSE) -- source: focus group 'village history'

10_INFRASTRUCTURE (1/2)		
nb columns: 35		
Name	Data type	Comments
inf_village_name_en	character varying	
inf_village_id	integer	
inf_year	integer	year of the survey
inf_nb_roads	integer	total number of roads leading to production areas -- source: focus group 'village history'
inf_nb_shops	integer	number of shops -- source: focus group 'general information'
inf_nb_gas_station	integer	number of gas stations -- source: focus group 'general information'
inf_nb_other_services	integer	number of other services -- source: focus group 'general information'
inf_electrical_network	integer	is there electricity network in the village? (TRUE or FALSE) -- source: focus group 'general information'
inf_electrical_alternative	integer	is there alternative electricity sources in the village? (TRUE or FALSE) -- source: focus group 'general information'
inf_date_connexion_nationalgrid	integer	date of connection to the national power grid -- source: focus group 'general information'
inf_nb_housepipes	integer	number of house pipes -- source: focus group 'general information'
inf_nb_waterpoints	integer	number of water points -- source: focus group 'general information'
inf_nb_riverstreams	integer	number of rivers, streams -- source: focus group 'general information'
inf_nb_other_water_install	integer	number of other water installations -- source: focus group 'general information'
inf_water_shortage	character varying	are there water shortages in the village? / no shortage / occasional but source close / regular but source close / regular and rationing / -- source: focus group 'general information'
inf_enough_domestic_water	boolean	is there enough water for domestic consumption? (TRUE or FALSE) -- source: focus group 'general information'
inf_enough_irrigation_water	boolean	is there enough water for irrigation? (TRUE or FALSE) -- source: focus group 'general information'
inf_village_office	boolean	is there office village ? (TRUE or FALSE) -- source: focus group 'general information'
inf_health_station	boolean	is there health station in the village ? -- source: focus group 'general information'
inf_health_station_distance	real	distance to the closest health station (km) / if 0 and there is no health station in the village: there is no health station close to the village / if empty cell: there is missing data / -- source: focus group 'general information'
inf_temporary_market	boolean	is there temporary market in the village ? (TRUE or FALSE) -- source: focus group 'general information'
inf_temporary_market_distance	real	distance to the closest temporary market (km) / if 0 and there is no temporary market in the village: there is no temporary market close to the village / if empty cell: there is missing data / -- source: focus group 'general information'
inf_permanent_market	boolean	is there permanent market in the village ? (TRUE or FALSE) -- source: focus group 'general information'
inf_permanent_market_distance	real	distance to the closest permanent market / if 0 and there is no permanent market in the village: there is no permanent market close to the village / if empty cell: there is missing data / -- source: focus group 'general information'
inf_sport_facilities	boolean	is there sport facilities in the village ? (TRUE or FALSE) -- source: focus group 'general information'
inf_sport_facilities_distance	real	distance to the closest sport facilities (km) / if 0 and there is no sport facilities in the village: there is no sport facilities close to the village / if empty cell: there is missing data / -- source: focus group 'general information'
inf_kindgarten	boolean	is there kindgarten in the village ? (TRUE or FALSE) -- source: focus group 'general information'
inf_kindgarten_distance	real	distance to the closest kindgarten (km) / if 0 and there is no kindgarten in the village: there is no kindgarten close to the village / if empty cell: there is missing data / -- source: focus group 'general information'
inf_kindgarten_type	character varying	kindgarten building type / bamboo / wood / concrete / -- source: focus group 'general information'
inf_primary_school	boolean	is there primary school in the village ? (TRUE or FALSE) -- source: focus group 'general information'
inf_primary_school_distance	real	distance to the closest primary school (km) / if 0 and there is no primary school in the village: there is no primary school close to the village / if empty cell: there is missing data / -- source: focus group 'general information'
inf_primary_school_type	character varying	primary school building type: / bamboo / wood / concrete / -- source: focus group 'general information'
inf_secondary_school	boolean	is there secondary school in the village ? (TRUE or FALSE) -- source: focus group

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		'general information'
inf_secondary_school_distance	real	distance to the closest secondary school (km) / if 0 and there is no secondary school in the village: there is no secondary school close to the village / if empty cell: there is missing data / -- source: focus group 'general information'
inf_secondary_school_type	character varying	secondary school building type: / bamboo / wood / concrete / -- source: focus group 'general information'

Crop theme: data presentation



village - crop	
nb tables: 5	nb fields:

table: crop data overview

11_CROPS_DIVERSITY		
nb columns: 7		
Name	Data type	Comments
ins_village_name	character varying	
ins_village_id	integer	
ins_year	integer	year of the survey
ins_nb_medical_workers	boolean	is there medical workers in the village? (TRUE if yes, FALSE if no) -- source: focus group 'general information'
ins_nb_members_comitee	integer	total number of members in the village organization committee -- source: focus group 'general information'
ins_nb_members_comitee_wom	integer	number of women in the village organization committee -- source: focus group 'general information'
ins_collective_labour_a	integer	collective labour a: fixing & cleaning the village road (man-days/year) -- source: focus group 'general information'
ins_collective_labour_b	integer	collective labour b: cleaning the village and school (man-days/year) -- source: focus group 'general information'
ins_collective_labour_c	integer	collective labour c: fixing/cleaning the water adduction system (man-days/year) -- source: focus group 'general information'
ins_collective_labour_d	integer	collective labour d: other collective works (man-days/year) -- source: focus group 'general information'

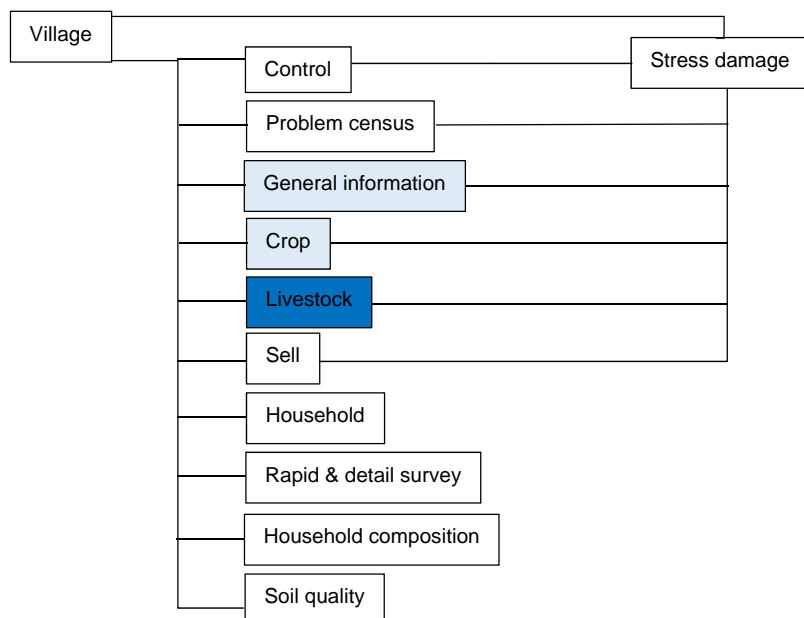
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11_NTFP		
nb columns: 9	list of NTFP species collected in the village	
Name	Data type	Comments
ntfp_village_name	character varying	
ntfp_village_id	integer	
ntfp_year	integer	
ntfp_name	character varying	name of NTFP -- source: focus group 'cropping system'
ntfp_collected	boolean	does NTFP is collected ? (TRUE or FALSE) -- source: focus group 'cropping system'
ntfp_self_consumption	boolean	does NTFP is collected for self-consumption ? (TRUE or FALSE) -- source: focus group 'cropping system'
ntfp_sold	boolean	does NTFP is commercialized ? (TRUE or FALSE) -- source: focus group 'cropping system'
ntfp_access_ressource_1	character varying	what access do villagers have to NTFP? (first choice) / A: open and unlimited access / B: regulation about the quantity collected per household (quotas) / C: regulation about the time of collection: limited number of days of collection each year / D: regulation about the use / E: NTFP domesticated: farmers grow it in order to increase the production /O: other / -- source: focus group 'cropping system'
ntfp_access_ressource_2	character varying	what access do villagers have to NTFP? (second choice) / A: open and unlimited access / B: regulation about the quantity collected per household (quotas) / C: regulation about the time of collection: limited number of days of collection each year / D: regulation about the use / E: NTFP domesticated: farmers grow it in order to increase the production /O: other / -- source: focus group 'cropping system'

11_PADDYFIELDS_CONSTRUCTION		
nb columns: 11	paddy fields which were opened in the village over the past decade	
Name	Data type	Comments
pc_village_name	character varying	
pc_village_id	integer	
pc_year	integer	year of the survey
pc_surface_paddy_areas	real	total surface of the paddy areas opened in the last 10 years (ha) -- source: focus group 'cropping system'
pc_nb_hh_involved	integer	number of households involved in the opening of new paddy lands -- source: focus group 'cropping system'
pc_payers	character varying	Who paid for the road? : / individual households paid for it / project paid for it / government initiative paid for it / other payer / -- source: focus group 'cropping system'
pc_terracing_investment	integer	total investment for terracing paddy land (MLAK) -- source: focus group 'cropping system'
pc_financing_a	boolean	villagers collected money among themselves to finance the road -- source: focus group 'cropping system'
pc_financing_b	boolean	individual investment financed the road -- source: focus group 'cropping system'
pc_financing_c	boolean	villagers borrowed money collectively from the bank to finance the road -- source: focus group 'cropping system'
pc_financing_other	boolean	other way to finance the road -- source: focus group 'cropping system'

11_PESTICIDE		
nb columns: 22	pesticides and chemical fertilizers used in the village	
Name	Data type	Comments
pc_village_name	character varying	
pc_village_id	integer	
pc_year	integer	year of the survey
pc_surface_paddy_areas	real	total surface of the paddy areas opened in the last 10 years (ha) -- source: focus group 'cropping system'
pc_nb_hh_involved	integer	number of households involved in the opening of new paddy lands -- source: focus group 'cropping system'
pc_payers	character varying	Who paid for the road? : / individual households paid for it / project paid for it / government initiative paid for it / other payer / -- source: focus group 'cropping system'
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pc_financing_b	boolean	individual investment financed the road -- source: focus group 'cropping system'
pc_financing_c	boolean	villagers borrowed money collectively from the bank to finance the road -- source: focus group 'cropping system'
pc_financing_other	boolean	other way to finance the road -- source: focus group 'cropping system'

Livestock theme: data presentation



village - livestock	
nb tables: 6	nb fields: 93

table: livestock data overview

12_FORAGE_PROCESSING		
forage production in the village		
Name	Data type	Comments
nb columns: 9		
fp_village_name	character varying	
fp_village_id	integer	
fp_year	integer	year of the survey
fp_kind_forageprocessing_1	character varying	kind of processing (first choice): / dry fodder / silage / oher / -- source: focus group 'livestock system'
fp_kind_forageprocessing_2	character varying	kind of processing (second choice): / dry fodder / silage / oher / -- source: focus group 'livestock system'
fp_origin_forageprocessing	character varying	origin of this practice: / initiated by a project / villagers' own initiative / -- source: focus group 'livestock system'
fp_management_forageprocessing_1	character varying	management of forage processing areas (first choice): / individual areas / common areas / collective area (whole village) / -- source: focus group 'livestock system'
fp_management_forageprocessing_2	character varying	management of forage processing areas (second choice): / individual areas / common areas / collective area (whole village) / -- source: focus group 'livestock system'
fp_nb_hh_forageprocessing	integer	number of households involved in forage processing -- source: focus group 'livestock system'

12_IMPROVED_PASTURE		
nb columns: 14	improved pasture in the village	
Name	Data type	Comments
ip_village_name	character varying	
ip_village_id	integer	
ip_year	integer	year of the survey
ip_pasture_improvement	boolean	
ip_food_buying	boolean	farmers buy food for the animals (TRUE or FALSE) -- source: focus group 'livestock system'
ip_year_improvedpasture	integer	year farmers improved pastures for the first time -- source: focus group 'livestock system'
ip_origin_improvedpasture_1	character varying	origin of this practice (first choice): / initiated by a project / villagers' own / -- source: focus group 'livestock system'
ip_origin_improvedpasture_2	character varying	origin of this practice (second choice): / initiated by a project / villagers' own / -- source: focus group 'livestock system'
ip_tot_improvedpasture_areas	real	total area of improved pasture in the village (ha) -- source: focus group 'livestock system'
ip_management_improvedpasture_1	character varying	management of improved pasture areas (first choice): / individual areas / common areas / collective area (whole village) / -- source: focus group 'livestock system'
ip_management_improvedpasture_2	character varying	management of improved pasture areas (second choice): / individual areas / common areas / collective area (whole village) / -- source: focus group 'livestock system'
ip_nb_hh_improvedpasture	integer	number of households involved -- source: focus group 'livestock system'
ip_grazing_practices_1	character varying	grazing practices (first choice): / cut and carry system / animals graze in the improved pasture / -- source: focus group 'livestock system'
ip_grazing_practices_2	character varying	grazing practices (second choice): / cut and carry system / animals graze in the improved pasture / -- source: focus group 'livestock system'

12_LIVESTOCK_CARE		
nb columns: 13	caring for animals	
Name	Data type	Comments
lcare_village_name	character varying	
lcare_village_id	integer	
lcare_year	integer	year of the survey
lcare_livestock_name	character varying	animal species: buffaloes / cows / goats / pigs / -- source: focus group 'livestock system'
lcare_night_sheds_dryseason	boolean	Do animals spend the night in sheds during dry season ? (TRUE or FALSE) -- source: focus group 'livestock system'
lcare_night_sheds_rainyseason	boolean	Do animals spend the night in sheds during rainy season ? (TRUE or FALSE) -- source: focus group 'livestock system'
lcare_sharing_caring	boolean	Do farmers share the caring of the animals? (TRUE or FALSE) -- source: focus group 'livestock system'
lcare_animal_circulation_a	boolean	animal circulation: free roaming (TRUE or FALSE) -- source: focus group 'livestock system'
lcare_animal_circulation_b	boolean	animal circulation: tented (TRUE or FALSE) -- source: focus group 'livestock system'
lcare_animal_circulation_c	boolean	animal circulation: inside fences (TRUE or FALSE) -- source: focus group 'livestock system'
lcare_animal_circulation_d	boolean	animal circulation: in sheds (TRUE or FALSE) -- source: focus group 'livestock system'
lcare_frequency_visits_dryseason	smallint	how frequently do farmers go and see their animals during dry season? -- source: focus group 'livestock system'
lcare_frequency_visits_rainyseason	real	how frequently do farmers go and see their animals during rainy season? -- source: focus group 'livestock system'

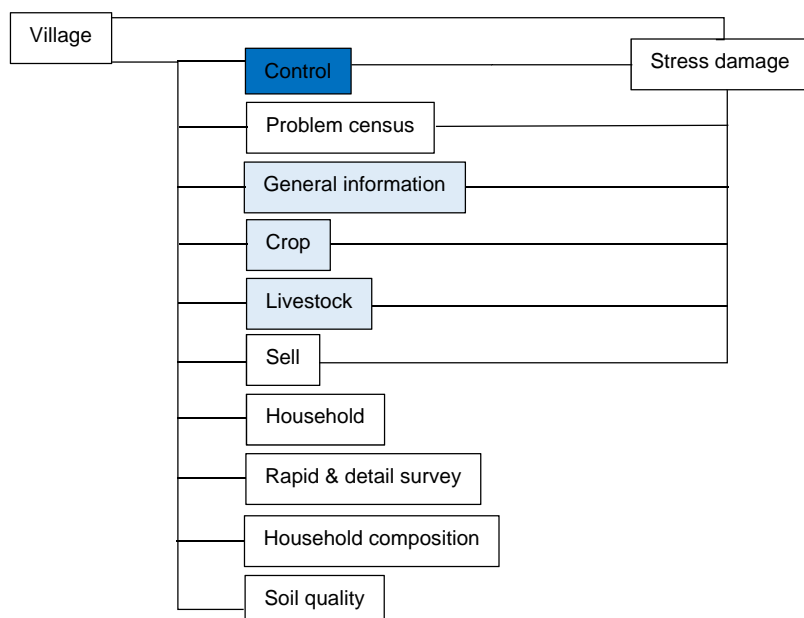
12_LIVESTOCK_CIRCULATION		
nb columns: 33	circulation of the animals and conflicts about livestock circulation and damages on crops	
Name	Data type	Comments
lcirc_village_name	character varying	
lcirc_village_id	integer	
lcirc_year	integer	year of the survey
lcirc_nb_livestock_areas	integer	number of livestock areas -- source: focus group 'livestock system'
lcirc_tot_livestock_areas	real	total of livestock areas (ha) -- source: focus group 'livestock system'
lcirc_nb_ticks_forest	integer	
lcirc_nb_ticks_fallows	integer	
lcirc_nb_ticks_pastures	integer	
lcirc_nb_ticks_paddies	integer	
lcirc_nb_ticks_villagesettlement	integer	
lcirc_damages_responsabilies_1	character varying	regulation about animal's circulation in the village (first choice): / no regulation at all / owner of the plot responsible / owner of the animals responsible / there is an established livestock area / some specific areas are forbidden for animals / -- source: focus group 'livestock system'
lcirc_damages_responsabilies_2	character varying	regulation about animal's circulation in the village (second choice): / no regulation at all / owner of the plot responsible / owner of the animals responsible / there is an established livestock area / some specific areas are forbidden for animals / -- source: focus group 'livestock system'
lcirc_fences	boolean	there are fences in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_paddyfields_a	boolean	there are bamboo or wood fences around paddy fields in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_paddyfields_b	boolean	there are barbed wire around paddy fields in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_paddyfields_c	boolean	there are living fences around paddy fields in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_paddyfields_d	boolean	there are no fences around paddy fields in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_livestockareas_a	boolean	there are bamboo or wood fences around livestock areas in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_livestockareas_b	boolean	there are barbed wire around livestock areas in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_livestockareas_c	boolean	there are living fences around livestock areas in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_livestockareas_d	boolean	there are no fences around livestock areas in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_uplandfields_a	boolean	there are bamboo or wood fences around upland fields in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_uplandfields_b	boolean	there are barbed wire around upland fields in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_uplandfields_c	boolean	there are living fences around upland fields in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_fences_uplandfields_d	boolean	there are no fences around upland fields in the village (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_cropsdamages_conflicts_village	boolean	there are conflicts within the village about livestock damages on crops (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_cropsdamages_conflicts_neighboringvillages	boolean	there are conflicts with neighboring villages about livestock damages on crops (TRUE or FALSE) -- source: focus group 'livestock system'
lcirc_cropsdamages_compensation_1	character varying	is there a compensation in case of damages on crops ? (first choice): / no compensation / systematic:there is a regulation about this / negotiation between the two parties / other / -- source: focus group 'livestock system'

lcirc_cropsdamages_compensation_2	character varying	is there a compensation in case of damages on crops ? (second choice): / no compensation / systematic:there is a regulation about this / negotiation between the two parties / other / -- source: focus group 'livestock system'
lcirc_cropsdamages_management_conflicts_village_1	character varying	management of conflicts within the village (first choice): / negotiation between the parties / village committee / 'conflict resolution' committee / elder committee / district authorities / other / -- source: focus group 'livestock system'
lcirc_cropsdamages_management_conflicts_village_2	character varying	management of conflicts within the village (second choice): / negotiation between the parties / village committee / 'conflict resolution' committee / elder committee / district authorities / other / -- source: focus group 'livestock system'
lcirc_cropsdamages_management_conflicts_neighboringvillages_1	character varying	management of conflicts with neighbour villages (first choice): / meeting with village-committees of both villages to negotiate / exists another institution dedicated to this matter / district authorities / the owners involved in the conflict negotiate / other / -- source: focus group 'livestock system'
lcirc_cropsdamages_management_conflicts_neighboringvillages_2	character varying	management of conflicts with neighbour villages (second choice): / meeting with village-committees of both villages to negotiate / exists another institution dedicated to this matter / district authorities / the owners involved in the conflict negotiate / other / -- source: focus group 'livestock system'

12 LIVESTOCK_DIVERSITY		
list of the animal species raised in the village		
nb columns: 4		
Name	Data type	Comments
Id_village_name	character varying	
Id_village_id	integer	
Id_year	integer	year of the survey
Id_livestock_name	character varying	name of livestock raised in the village -- source: focus group 'cropping system'

12_LIVESTOCK_VACCINATION		
nb columns: 20		
vaccination story in the village		
Name	Data type	Comments
lv_village_name	character varying	
lv_village_id	integer	
lv_village_year	integer	year of the survey
lv_vaccination_year_buffaloes	integer	year of the first vaccination on buffaloes -- source: focus group 'livestock system'
lv_vaccination_frequency_buffaloes	integer	frequency of vaccination on buffaloes: / every month / every 3 months / every 6 months / once a year / once in 5 years / -- source: focus group 'livestock system'
lv_vaccination_year_cows	integer	year of the first vaccination on cows -- source: focus group 'livestock system'
lv_vaccination_frequency_cows	integer	frequency of vaccination on cows: / every month / every 3 months / every 6 months / once a year / once in 5 years / -- source: focus group 'livestock system'
lv_vaccination_year_goats	integer	year of the first vaccination on goats -- source: focus group 'livestock system'
lv_vaccination_frequency_goats	integer	frequency of vaccination on goats: / every month / every 3 months / every 6 months / once a year / once in 5 years / -- source: focus group 'livestock system'
lv_vaccination_year_pigs	integer	year of the first vaccination on pigs -- source: focus group 'livestock system'
lv_vaccination_frequency_pigs	integer	frequency of vaccination on pigs: / every month / every 3 months / every 6 months / once a year / once in 5 years / -- source: focus group 'livestock system'
lv_vaccination_year_poultry	integer	year of the first vaccination on poultry -- source: focus group 'livestock system'
lv_vaccination_frequency_poultry	integer	frequency of vaccination on poultry: / every month / every 3 months / every 6 months / once a year / once in 5 years / -- source: focus group 'livestock system'
lv_nb_veterinary_workers	integer	number of veterinary workers in the village -- source: focus group 'livestock system'
lv_sincewhen	integer	year since when there are veterinary workers in the village -- source: focus group 'livestock system'
lv_first_vaccination_reasons	character varying	reason to the first vaccination: / DAFO vaccination campaign / own initiative from villagers: they made a request to DAFO to come and vaccinate / villagers bought vaccinations themselves / -- source: focus group 'livestock system'
lv_vaccinator_a	boolean	DAFO staff vaccinates most frequently (TRUE or FALSE) -- source: focus group 'livestock system'
lv_vaccinator_b	boolean	private veterinary vaccinates most frequently (TRUE or FALSE) -- source: focus group 'livestock system'
lv_vaccinator_c	boolean	village veterinary vaccinates most frequently (TRUE or FALSE) -- source: focus group 'livestock system'
lv_vaccinator_d	boolean	farmers themselves vaccinate most frequently (TRUE or FALSE) -- source: focus group 'livestock system'

Control theme: data presentation



village - control	
nb tables: 1	nb fields: 46

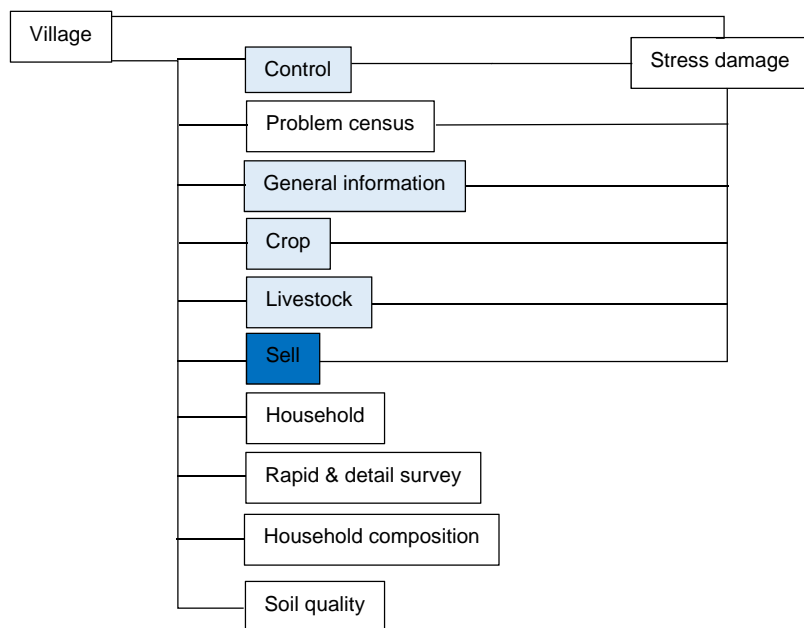
table: control data overview

13 CONTROL		
nb columns: 46		
agricultural land use systems characterization at the village level		
Name	Data type	Comments
c_village_name	character varying	
c_village_id	integer	
c_village_year	integer	
c_fallow_length_a	boolean	fallow length: 1-2 years (TRUE or FALSE) -- source: DAFO staff
c_fallow_length_b	boolean	fallow length: 3-5 years (TRUE or FALSE) -- source: DAFO staff
c_fallow_length_c	boolean	fallow length: 6-9 years (TRUE or FALSE) -- source: DAFO staff
c_fallow_length_d	boolean	fallow length: 10 years or more (TRUE or FALSE) -- source: DAFO staff
c_nb_production_group_a	boolean	cultivation patterns: number of production groups in the village: 1-3 groups (TRUE or FALSE) -- source: DAFO staff
c_nb_production_group_b	boolean	cultivation patterns: number of production groups in the village: 4-6 groups (TRUE or FALSE) -- source: DAFO staff
c_nb_production_group_c	boolean	cultivation patterns: number of production groups in the village: 7-9 groups (TRUE or FALSE) -- source: DAFO staff
c_nb_production_group_d	boolean	cultivation patterns: number of production groups in the village: 10 groups or more (TRUE or FALSE) -- source: DAFO staff
c_labour_force_a	boolean	labor force: mutual help (TRUE or FALSE) -- source: DAFO staff
c_labour_force_b	boolean	labor force: family labor (TRUE or FALSE) -- source: DAFO staff
c_labour_force_c	boolean	labor force: hired labor (TRUE or FALSE) -- source: DAFO staff
c_crop_association_a	boolean	maximum number of crops in the same plot: 1 (TRUE or FALSE) -- source: DAFO staff
c_crop_association_b	boolean	maximum number of crops in the same plot: 2 (TRUE or FALSE) -- source: DAFO staff

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c_crop_association_c	boolean	maximum number of crops in the same plot: 3-5 (TRUE or FALSE) -- source: DAFO staff
c_crop_association_d	boolean	maximum number of crops in the same plot: more than 5 (TRUE or FALSE) -- source: DAFO staff
c_fences_material_a	boolean	fences material: bamboo - wood (TRUE or FALSE) -- source: DAFO staff
c_fences_material_b	boolean	fences material: wood - barbed wire (TRUE or FALSE) -- source: DAFO staff
c_fences_material_c	boolean	fences material: living trees - bw (TRUE or FALSE) -- source: DAFO staff
c_fences_material_d	boolean	fences material: concrete poles - bw (TRUE or FALSE) -- source: DAFO staff
c_ntfp_collection_a	boolean	NTFP collection: open access (TRUE or FALSE) -- source: DAFO staff
c_ntfp_collection_b	boolean	NTFP collection: access regulations (TRUE or FALSE) -- source: DAFO staff
c_ntfp_collection_c	boolean	NTFP collection: time windows (TRUE or FALSE) -- source: DAFO staff
c_ntfp_collection_d	boolean	NTFP collection: domestication (TRUE or FALSE) -- source: DAFO staff
c_nb_cycles_paddy	integer	number of cycles of paddy rice per year -- source: DAFO staff
c_nb_cycles_vegetable	integer	number of cycles of vegetables per year -- source: DAFO staff
c_land_use_types_a	boolean	they can get access to forest some times of the year (TRUE or FALSE) -- source: DAFO staff
c_land_use_types_b	boolean	they can get access to fallow some times of the year (TRUE or FALSE) -- source: DAFO staff
c_land_use_types_c	boolean	they can get access to grassland some times of the year (TRUE or FALSE) -- source: DAFO staff
c_land_use_types_d	boolean	they can get access to paddies some times of the year (TRUE or FALSE) -- source: DAFO staff
c_land_damage_management_a	boolean	damages management: fenced crops - cultivator responsible (TRUE or FALSE) -- source: DAFO staff
c_land_damage_management_b	boolean	damages management: fenced livestock - breeder responsible (TRUE or FALSE) -- source: DAFO staff
c_land_management_type_a	boolean	management type: free-roaming (TRUE or FALSE) -- source: DAFO staff
c_land_management_type_b	boolean	management type: tented (TRUE or FALSE) -- source: DAFO staff
c_land_management_type_c	boolean	management type: livestock area (TRUE or FALSE) -- source: DAFO staff
c_land_management_type_d	boolean	management type: grass cultivation (TRUE or FALSE) -- source: DAFO staff
c_pigs_circulation_a	boolean	free roaming circulation for pigs (TRUE or FALSE) -- source: DAFO staff
c_pigs_circulation_b	boolean	pigs spend night in pen (TRUE or FALSE) -- source: DAFO staff
c_pigs_circulation_c	boolean	pigs are kept in pen (TRUE or FALSE) -- source: DAFO staff
c_pigs_circulation_d	boolean	they buy additional food for pigs (TRUE or FALSE) -- source: DAFO staff
c_chickens_circulation_a	boolean	free roaming circulation for chickens (TRUE or FALSE) -- source: DAFO staff
c_chickens_circulation_b	boolean	chickens spend night in pen (TRUE or FALSE) -- source: DAFO staff
c_chickens_circulation_c	boolean	chickens are kept in pen (TRUE or FALSE) -- source: DAFO staff
c_chickens_circulation_d	boolean	they buy additional food for chickens (TRUE or FALSE) -- source: DAFO staff

Sell



village - sell	
nb tables: 4	nb fields: 66

14_SELLING		
nb columns: 6		
Name	Data type	Comments
s_village_name	character varying	
s_village_id	integer	
s_year	integer	year of the survey
s_selling_type	character varying	kind of product currently sold: crop / ntfp / livestock -- source: focus group 'sales and contracts'
s_selling_name	character varying	name of product currently sold -- source: focus group 'sales and contracts'
s_nb_traders	character varying	number of traders buying this product in the village: / 1 trader / a few traders / many traders / -- source: focus group 'sales and contracts'

14_STOP_SELLING		
nb columns: 13		
Name	Data type	Comments
ss_village_name	character varying	
ss_village_id	integer	
ss_year	integer	year of the survey
ss_stopselling_type	character varying	kind of product they stop selling: crop / ntfp / livestock -- source: focus group 'sales and contracts'
ss_stopselling_name	character varying	name of product they stop selling -- source: focus group 'sales and contracts'
ss_reason_a	boolean	reason they stopped selling this product: price dropped (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
ss_reason_b	boolean	reason they stopped selling this product: no traders buying it anymore (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
ss_reason_c	boolean	reason they stopped selling this product: big loss due to external events (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
ss_reason_d	boolean	reason they stopped selling this product: yields decreased (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
ss_reason_e	boolean	reason they stopped selling this product: lack of technical knowledge (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
ss_reason_f	boolean	reason they stopped selling this product: lack of labor force (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
ss_reason_g	boolean	reason they stopped selling this product: contract breaking (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
ss_reason_h	boolean	reason they stopped selling this product: other (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'

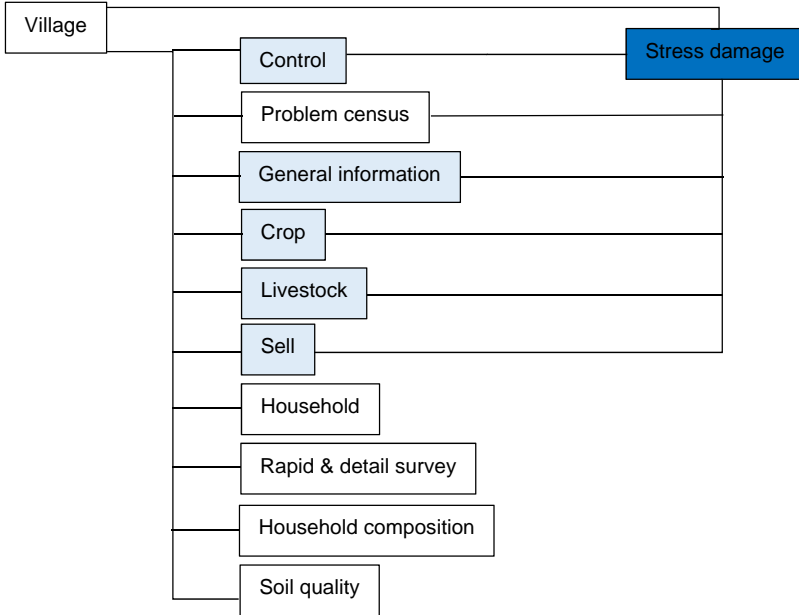
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14_CONTRACT_SELLING		
nb columns: 18	list of all products sold by villagers, either currently or in the past	
Name	Data type	Comments
cs_village_name	character varying	
cs_village_id	integer	
cs_year	integer	year of the survey
cs_product_name	character varying	
cs_min_price	integer	minimum price agreed in the contract (LAK/kg) -- source: focus group 'sales and contracts'
cs_contract_level	character varying	level of the contract: / individual household / village / district / province / -- source: focus group 'sales and contracts'
cs_commitment_company_a	boolean	commitment from company: to buy the whole production, whatever the quantity (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_company_b	boolean	commitment from company: to finance the construction of a road to production areas (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_company_c	boolean	commitment from company: to finance building of any other infrastructure in the village (meeting room, school, etc.) (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_company_d	boolean	commitment from company: to give money for a village fund (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_company_e	boolean	commitment from company: to give tools or inputs (pesticide, chemical fertilizer, seeds) from the company (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_company_f	boolean	commitment from company: to provide seeds (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_company_g	boolean	commitment from company: other (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_villagers_a	boolean	commitment from the villagers: to sell their whole production to this trader/company (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_villagers_b	boolean	commitment from the villagers: minimum quantity (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_villagers_c	boolean	commitment from the villagers: quality of the product (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_villagers_d	boolean	commitment from the villagers: to reimburse for the services / infrastructure / tools provided by the company (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cs_commitment_villagers_e	boolean	commitment from the villagers: other (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'

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14_CONCESSION		
nb columns: 29	land concessions and deals	
Name	Data type	Comments
con_village_name	character varying	
con_village_id	integer	
con_year	integer	year of the survey
con_part_entity_managing	character varying	entity managing part of the village land: private investor; district or province government -- source: focus group 'sales and contracts'
con_impact_villagers_access_1	character varying	impact on villagers access to land (first choice): / restricted access to former open access land / difficult to find plots easily accessible (shorter rotation) / price of the plot increased / have to borrow, purchase plots / no impact / -- source: focus group 'sales and contracts'
con_impact_villagers_access_2	character varying	impact on villagers access to land (second choice): / restricted access to former open access land / difficult to find plots easily accessible (shorter rotation) / price of the plot increased / have to borrow, purchase plots / no impact / -- source: focus group 'sales and contracts'
con_consequences_villagers_access_a	boolean	consequences on villagers' access to land: they lost part of their agricultural land (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_consequences_villagers_access_b	boolean	consequences on villagers' access to land: they lost access to forest area (they cannot collect NTFPs any more, or leave livestock free-roaming there) (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_consequences_villagers_access_c	boolean	consequences on villagers' access to land: they lost access to a river (less water resource, no fishing anymore) (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_consequences_villagers_access_d	boolean	consequences on villagers' access to land: no real impact, the area managed by the company is small or located in an area of the village they did not use much (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_compensation_provided	boolean	compensation was provided (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_company_name	character varying	name of the company -- source: focus group 'sales and contracts'
con_registration_location	character varying	registration location -- source: focus group 'sales and contracts'
con_company_activity	character varying	activity of the company on these lands: / crops / hydroelectricity / mining / land speculation / -- source: focus group 'sales and contracts'
con_surface_company_area	real	area they manage (ha) -- source: focus group 'sales and contracts'
con_percentage_company_area	real	percentage of the total village area -- source: focus group 'sales and contracts'
con_way_company_getland	character varying	how did the company get the land : / attributed by DAFO, PAFO, MAF without asking villagers opinion / attributed by DAFO, PAFO, MAF with villagers agreement / bought it from villagers / rent it from villagers / borrow it from villagers (no payment) / -- source: focus group 'sales and contracts'
con_villagers_signature_company	boolean	villagers signed a document / contract to attest / validate this deal (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_attribution_duration_company	integer	duration of the attribution (years) -- source: focus group 'sales and contracts'
con_document_a	boolean	document attestin the ownership/land use right: property title (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_document_b	boolean	document attestin the ownership/land use right: temporary landuse title (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_document_c	boolean	document attestin the ownership/land use right: written agreement witnessed by village head (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_document_d	boolean	document attestin the ownership/land use right: no document, oral agreement (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_reason	character varying	reason the government took over the land use right from villagers and now manage them: / creation of a natural protected area / government project on agriculture / military, security land / other / -- source: focus group 'sales and contracts'
con_surface_government_area	real	area under government management (ha) -- source: focus group 'sales and contracts'
con_percentage_government_area	real	percentage of area under government management out of the total village area -- source: focus group 'sales and contracts'
con_decision_process	character varying	decision process: / the project was presented to villagers and they agreed / villagers were reluctant but the government put pressure for them to accept / villagers did not have a choice: it was imposed to them without asking their opinion / -- source: focus group 'sales and contracts'
con_villagers_signature_government	boolean	villagers signed any document / contract to attest / validate this deal (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
con_attribution_duration_government	integer	duration of the attribution (years) -- source: focus group 'sales and contracts'

Stress damage



village - stress	
nb tables: 30	nb fields:

15_CONTRACT BREAKING		
nb columns: 20		
Name	Data type	Comments
cb_village_name	character varying	
cb_district_id	integer	
cb_year	integer	year of the survey
cb_product_name	character varying	
cb_company_name	character varying	name of the company / bank / trader / -- source: focus group 'sales and contracts'
cb_date_signature	integer	date the contract was signed/settled -- source: focus group 'sales and contracts'
cb_nb_hh_involved	integer	number of households involved -- source: focus group 'sales and contracts'
cb_benefits_1	character varying	benefits provided by the company (first choice): / none / provides seeds / training / technical advices / equipment, tools / finance the building of infrastructures / -- source: focus group 'sales and contracts'
cb_benefits_2	character varying	benefits provided by the company (second choice): / none / provides seeds / training / technical advices / equipment, tools / finance the building of infrastructures / -- source: focus group 'sales and contracts'
cb_reimbursement_modalities	character varying	reimbursement modalities: / no repayment / directly to the company / partnership with a bank / cheaper price of the product villagers sell: the company deducts the price of the seeds (or other inputs provided) / -- source: focus group 'sales and contracts'
cb_contracts_documents	boolean	there are contract documents (TRUE if written agreement, FALSE if oral agreement) -- source: focus group 'sales and contracts'
cb_signatory_a	boolean	PAFO signed the contract (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cb_signatory_b	boolean	DAFO signed the contract (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cb_signatory_c	boolean	village head signed the contract (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cb_signatory_d	boolean	villagers involved in the contract signed the contract (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cb_agreed_price	integer	agreed price (LAK/kg) -- source: focus group 'sales and contracts'
cb_price_agreement	character varying	agreement on the price: / fixed price / security price / -- source: focus group 'sales and contracts'
cb_givendate_collect	boolean	company commits to collect at a given date (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cb_all_collect	boolean	company commits to buy the whole production whatever the quantity (TRUE if yes, FALSE if no)
cb_price_disagreement	boolean	disagreement about price (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cb_company_price	integer	price offered by the company (LAK/kg) -- source: focus group 'sales and contracts'
cb_collection_disagreement	boolean	disagreement about the collection (TRUE if yes, FALSE if no) -- source: focus group 'sales and contracts'
cb_company	character varying	the company: / did not show up to buy the product / did not come on the agreed collection date / did not buy the whole production / bought only to some villagers / -- source: focus group 'sales and contracts'
cb_fg_sales_contract	integer	number of farmers on the focus group 'sales and contract' -- source: focus group 'sales and contracts'
cb_sold_anyway	boolean	did people sell the product anyway, despite contract breaking (lower price, delayed...)? (TRUE or FALSE) -- source: focus group 'sales and contracts'
cb_nb_villagers_protestingprocedure	boolean	villagers made a request/protesting procedure -- source: focus group 'sales and contracts'
cb_sold_elsewhere	boolean	did people sell the product elsewhere? (TRUE or FALSE) -- source: focus group 'sales and contracts'
cb_nb_hh_indebt	integer	number of families still in debt in the village -- source: focus group 'sales and contracts'
cb_villagers_carried_on_grow_1	character varying	villagers carried on growing this product (first choice): / no / only for self-consumption / only a few to keep seeds / yes, same as the previous year / -- source: focus group 'sales and contracts'
cb_villagers_carried_on_grow_2	character varying	villagers carried on growing this product (second choice): / no / only for self-consumption / only a few to keep seeds / yes, same as the previous year / -- source: focus group 'sales and contracts'

15_DROUGHT		
nb columns: 15		
Name	Data type	Comments
d_village_name	character varying	
d_district_id	integer	
d_year	integer	year of the survey
d_year_last_damage	integer	year of the last drought -- source: focus group 'cropping system'
d_month_beginning	integer	month drought started -- source: focus group 'cropping system'
d_month_end	integer	month drought ended -- source: focus group 'cropping system'
d_frequency	integer	number of droughts over the past 10 years -- source: focus group 'cropping system'
d_reaction_a	boolean	practice to cope with drought: irrigation (TRUE or FALSE) -- source: focus group 'cropping system'
d_reaction_b	boolean	practice to cope with drought: manual watering (TRUE or FALSE) -- source: focus group 'cropping system'
d_reaction_c	boolean	practice to cope with drought: cover crop - mulching (TRUE or FALSE) -- source: focus group 'cropping system'
d_reaction_d	boolean	practice to cope with drought: replanting the same crop (TRUE or FALSE) -- source: focus group 'cropping system'
d_reaction_e	boolean	practice to cope with drought: replanting another variety (TRUE or FALSE) -- source: focus group 'cropping system'
d_reaction_f	boolean	practice to cope with drought: replanting another crop (TRUE or FALSE) -- source: focus group 'cropping system'
d_reaction_g	boolean	practice to cope with drought: do not do anything (TRUE or FALSE) -- source: focus group 'cropping system'
d_reaction_h	boolean	practice to cope with drought: other (TRUE or FALSE) -- source: focus group 'cropping system'

15_FLOOD_LANDSLIDE		
nb columns: 26		
Name	Data type	Comments
fl_village_name	character varying	
fl_district_id	integer	
fl_year	integer	year of the survey
fl_year_last_damage	integer	year of the last big event due to excess of rain -- source: focus group 'cropping system'
fl_month_beginning	integer	month damage started -- source: focus group 'cropping system'
fl_month_end	integer	month damage ended -- source: focus group 'cropping system'
fl_frequency	integer	number of times damage occurred over the past 10 years -- source: focus group 'cropping system'
fl_reaction_landslide_production_area_a	boolean	reaction to landslide in the production area: they stopped cultivating on steep slopes (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_production_area_b	boolean	reaction to landslide in the production area: they set living fences or grass strips (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_production_area_c	boolean	reaction to landslide in the production area: they covered crop (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_production_area_d	boolean	reaction to landslide in the production area: they did not do anything (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_village_settlement_a	boolean	reaction to landslide in the village settlement: they established a protection forest (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_village_settlement_b	boolean	reaction to landslide in the village settlement: they regulated about where they can build houses (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_village_settlement_c	boolean	reaction to landslide in the village settlement: they did not do anything (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_road_a	boolean	reaction to landslide on the road: they established a protection forest (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_road_b	boolean	reaction to landslide on the road: they established collective work to maintain/fix the road (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_road_c	boolean	reaction to landslide on the road: they demarcate 'risk area' – warning signs (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_road_d	boolean	reaction to landslide on the road: they cover crop (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_road_e	boolean	reaction to landslide on the road: they let the company come to fix it (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_landslide_road_f	boolean	reaction to landslide on the road: they did not do anything (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_flood_lowland_area_a	boolean	reaction to flood in the lowland area: they level up the land after the flood (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_flood_lowland_area_b	boolean	reaction to flood in the lowland area: they stabilise the river banks (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_flood_lowland_area_c	boolean	reaction to flood in the lowland area: they did not do anything (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_flood_village_a	boolean	reaction to flood in the village: they build a dike around the village (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_flood_village_b	boolean	reaction to flood in the village: they demarcate 'risk area' – warning signs (TRUE or FALSE) -- source: focus group 'cropping system'
fl_reaction_flood_village_c	boolean	reaction to flood in the village: they did not do anything (TRUE or FALSE) -- source: focus group 'cropping system'

15_CROPSDAMAGE_REACTION		
nb columns: 46	solutions and reactions to pest damages	
Name	Data type	Comments
cr_village_name	character varying	
cr_village_id	integer	
cr_year	integer	year of the survey
cr_reaction_pigs_a	integer	reaction to wild pigs damages on crops: % of participants did not do anything -- source: focus group 'cropping system'
cr_reaction_pigs_b	integer	reaction to wild pigs damages on crops: % of participants hunt at night -- source: focus group 'cropping system'
cr_reaction_pigs_c	integer	reaction to wild pigs damages on crops: % of participants set fire around the plot - - source: focus group 'cropping system'
cr_reaction_pigs_d	integer	reaction to wild pigs damages on crops: % of participants used rags soaked with perfume/soap -- source: focus group 'cropping system'
cr_reaction_pigs_e	integer	reaction to wild pigs damages on crops: % of participants cut trees around the plot to make a natural fence -- source: focus group 'cropping system'
cr_reaction_pigs_f	integer	reaction to wild pigs damages on crops: % of participants installed barbed wire fences -- source: focus group 'cropping system'
cr_reaction_pigs_g	integer	reaction to wild pigs damages on crops: % of participants installed electric fences -- source: focus group 'cropping system'
cr_reaction_pigs_h	integer	reaction to wild pigs damages on crops: % of participants put traps -- source: focus group 'cropping system'
cr_reaction_pigs_i	integer	reaction to wild pigs damages on crops: % of participants pour diesel around the fence of upland field -- source: focus group 'cropping system'
cr_reaction_pigs_j	integer	reaction to wild pigs damages on crops: % of participants hunt a day time -- source: focus group 'cropping system'
cr_reaction_pigs_k	integer	reaction to wild pigs damages on crops: % of participants set white paper around the fence of the plot -- source: focus group 'cropping system'
cr_reaction_pigs_l	integer	reaction to wild pigs damages on crops: % of participants reacted differently -- source: focus group 'cropping system'
cr_reaction_rats_a	integer	reaction to rats damages on crops: % of participants did not do anything -- source: focus group 'cropping system'
cr_reaction_rats_b	integer	reaction to rats damages on crops: % of participants put traps -- source: focus group 'cropping system'
cr_reaction_rats_c	integer	reaction to rats damages on crops: % of participants hunt at night -- source: focus group 'cropping system'
cr_reaction_rats_d	integer	reaction to rats damages on crops: % of participants pour rats poison -- source: focus group 'cropping system'
cr_reaction_rats_e	integer	reaction to rats damages on crops: % of participants controlled weed -- source: focus group 'cropping system'
cr_reaction_rats_f	integer	reaction to rats damages on crops: % of participants controlled weed -- source: focus group 'cropping system'
cr_reaction_birds_a	integer	reaction to birds damages on crops: % of participants did not do anything -- source: focus group 'cropping system'
cr_reaction_birds_b	integer	reaction to birds damages on crops: % of participants put scarecrows up -- source: focus group 'cropping system'
cr_reaction_birds_c	integer	reaction to birds damages on crops: % of participants installed nets -- source: focus group 'cropping system'
cr_reaction_birds_d	integer	reaction to birds damages on crops: % of participants staid in the field and frighten the birds -- source: focus group 'cropping system'
cr_reaction_birds_e	integer	reaction to birds damages on crops: % of participants hunt birds -- source: focus group 'cropping system'
cr_reaction_birds_f	integer	reaction to birds damages on crops: % of participants used mechanic sound systems -- source: focus group 'cropping system'
cr_reaction_birds_g	integer	reaction to birds damages on crops: % of participants used automatic sound systems -- source: focus group 'cropping system'
cr_reaction_birds_h	integer	reaction to birds damages on crops: % of participants reacted differently -- source: focus group 'cropping system'
cr_reaction_insects_a	integer	reaction to insect damages on crops: % of participants did not do anything -- source: focus group 'cropping system'
cr_reaction_insects_b	integer	reaction to insect damages on crops: % of participants picked them by hand -- source: focus group 'cropping system'
cr_reaction_insects_c	integer	reaction to insect damages on crops: % of participants applied unsystematically pesticide -- source: focus group 'cropping system'
cr_reaction_insects_d	integer	reaction to insect damages on crops: % of participants applied systematically pesticide -- source: focus group 'cropping system'

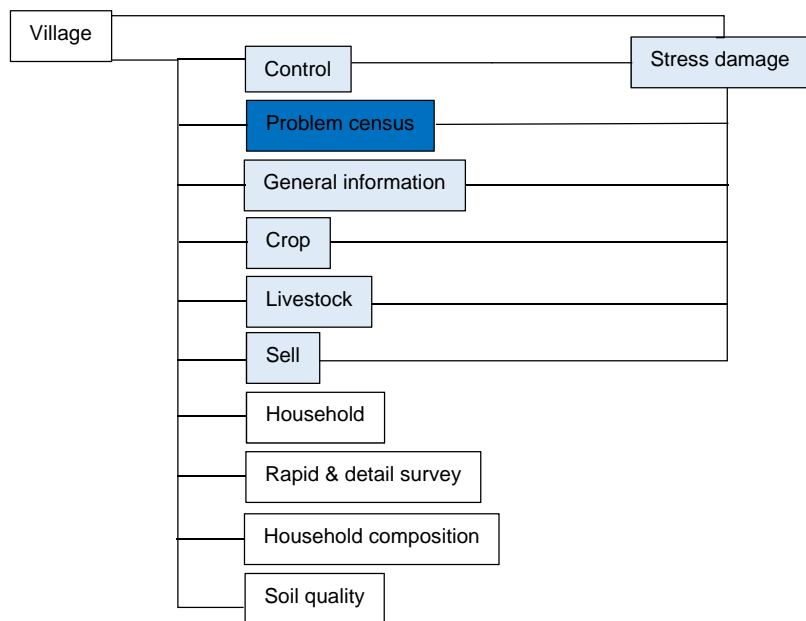
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cr_reaction_insects_e	integer	reaction to insect damages on crops: % of participants reacted differently -- source: focus group 'cropping system'
cr_reaction_livestock_a	integer	reaction to livestock damages on crops: % of participants did not do anything -- source: focus group 'cropping system'
cr_reaction_livestock_b	integer	reaction to livestock damages on crops: % of participants cut trees around the plot to make a natural fence -- source: focus group 'cropping system'
cr_reaction_livestock_c	integer	reaction to livestock damages on crops: % of participants installed bamboo/wood fences -- source: focus group 'cropping system'
cr_reaction_livestock_d	integer	reaction to livestock damages on crops: % of participants installed barbed wire fences -- source: focus group 'cropping system'
cr_reaction_livestock_e	integer	reaction to livestock damages on crops: % of participants installed electric fences -- source: focus group 'cropping system'
cr_reaction_livestock_f	integer	reaction to livestock damages on crops: % of participants negotiated with the owner of the animals -- source: focus group 'cropping system'
cr_reaction_livestock_g	integer	reaction to livestock damages on crops: % of participants reacted differently -- source: focus group 'cropping system'
cr_reaction_plant_a	integer	reaction to plant diseases damages on crops: % of participants did not do anything -- source: focus group 'cropping system'
cr_reaction_plant_b	integer	reaction to plant diseases damages on crops: % of participants picked the infected seedlings out -- source: focus group 'cropping system'
cr_reaction_plant_c	integer	reaction to plant diseases damages on crops: % of participants applied unsystematically pesticide -- source: focus group 'cropping system'
cr_reaction_plant_d	integer	reaction to plant diseases damages on crops: % of participants applied systematically pesticide -- source: focus group 'cropping system'
cr_reaction_plant_e	integer	reaction to plant diseases damages on crops: % of participants reacted differently -- source: focus group 'cropping system'

15_CROPSDAMAGE_INTENSITY		
nb columns: 21		
Name	Data type	Comments
ci_village_name	character varying	
ci_village_id	integer	
ci_year	integer	year of the survey
ci_focusgroup_crops_damage	integer	number of farmers attending the focus group 'crops damages' -- source: focus group 'cropping system'
ci_crop_name	character varying	
ci_cause_rank	integer	ranking of the causes -- source: focus group 'cropping system'
ci_cause_name	character varying	name of the causes -- source: focus group 'cropping system'
ci_year_last_bigdamage	integer	year of the last big damage -- source: focus group 'cropping system'
ci_frequency	integer	number of times it occurred over the last 10 years -- source: focus group 'cropping system'
ci_intensity_0	integer	
ci_intensity_10	integer	
ci_intensity_20	integer	
ci_intensity_30	integer	
ci_intensity_40	integer	
ci_intensity_50	integer	
ci_intensity_60	integer	
ci_intensity_70	integer	
ci_intensity_80	integer	
ci_intensity_90	integer	
ci_intensity_100	integer	
ci_mean_intensity	integer	

15_LIVESTOCK_DISEASE		
nb columns: 18		
Name	Data type	Comments
Idisease_village_name	character varying	
Idisease_village_id	integer	
Idisease_year	integer	year of the survey
Idisease_nb_fg_livestocksystem	integer	number of participants to the focus group 'livestock system' -- source: focus group 'livestock system'
Idisease_livestock_name	character varying	kind of animal: / buffaloes / cows / goats / pigs / poultry / -- source: focus group 'livestock system'
Idisease_year_last_damage	integer	year of last disease outbreak -- source: focus group 'livestock system'
Idisease_intensity_last_damage	integer	intensity of the last disease outbreak -- source: focus group 'livestock system'
Idisease_frequency_last_damage	integer	number of disease outbreaks over the past 10 years -- source: focus group 'livestock system'
Idisease_reaction_a	boolean	reaction of villagers to the last disease outbreak: they did not do anything (TRUE or FALSE) -- source: focus group 'livestock system'
Idisease_reaction_b	boolean	reaction of villagers to the last disease outbreak: they isolated the sick animals (TRUE or FALSE) -- source: focus group 'livestock system'
Idisease_reaction_c	boolean	reaction of villagers to the last disease outbreak: they sold their animals (TRUE or FALSE) -- source: focus group 'livestock system'
Idisease_reaction_d	boolean	reaction of villagers to the last disease outbreak: they killed sick animals (TRUE or FALSE) -- source: focus group 'livestock system'
Idisease_reaction_e	boolean	reaction of villagers to the last disease outbreak: they used medicinal plants (TRUE or FALSE) -- source: focus group 'livestock system'
Idisease_reaction_f	boolean	reaction of villagers to the last disease outbreak: they gave special food (TRUE or FALSE) -- source: focus group 'livestock system'
Idisease_reaction_g	boolean	reaction of villagers to the last disease outbreak: they bought medicine (TRUE or FALSE) -- source: focus group 'livestock system'
Idisease_reaction_h	boolean	reaction of villagers to the last disease outbreak: they vaccinated (TRUE or FALSE) -- source: focus group 'livestock system'
Idisease_reaction_i	boolean	reaction of villagers to the last disease outbreak: they made a request to the DAFO (TRUE or FALSE) -- source: focus group 'livestock system'
Idisease_reaction_j	boolean	reaction of villagers to the last disease outbreak: they reacted differently (TRUE or FALSE) -- source: focus group 'livestock system'

Problem census

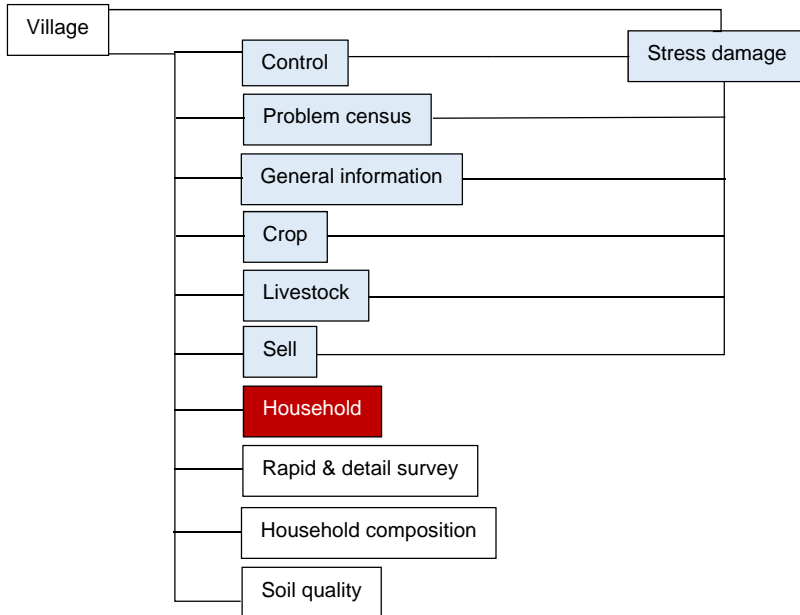


village - problem census	
nb tables: 1	nb fields: 6

16_PROBLEM_CENSUS		
nb columns: 6	review of village problems, causes, impacts, proposed solutions, ranking by importance for the village -- source: focus group 'problem census men' and 'problem census women'	
Name	Data type	Comments
pc_village_name	character varying	
pc_village_id	integer	
pc_year	integer	
pc_problem	character varying	village problems, causes, impacts, proposed solutions: // 1- Lack water for domestic use: The water in the stream is not sufficient or the reservoir is too small to provide sufficient water for the whole village. This requires additional work to women and children to carry water // 2- Livestock diseases: Animal diseases cause large economic losses in the village // 3- Market price fluctuations: High price fluctuations and absence of information about prices put local villagers in a weak position to bargain with traders and private companies. // 4- Forest resources are degraded: Deforestation, forest degradation, NTFP are getting more scarce because of non-sustainable forest management practices // 5- Livestock damages on crops: Fences are not strong enough. Interest in setting up permanent fences with barbed wire. // 6- Yield decrease: Yield decrease due to the shortening of fallow periods 'plouk lay day noy'. Land degradation leads to decreasing productivity of upland rice systems which threatens food security. // 7- Contract breaking: Traders don't come to buy. // 8- Too many children: Women complain that they have too many children who generate increasing expenses for education as they study longer than before and do not help anymore with the farm activities, therefore increasing the number of mouths to feed while increasing the youth dependency ratio (i.e. number of dependent children per adult). Old generation women used to have 7 to 8 children while new generation have 4 to 5 children. // 9- Livestock feed: Large livestock does not have enough grass to eat during dry season. No livestock area. Get thin and are sold at low price. // 10- Access to credit: Request village fund to buy large livestock because villagers do not have enough capital to invest themselves // 11- Roads to production areas: Villagers would like to expand the village road network seen as a constraint of agricultural expansion // 12- Lack irrigation system: Would like to get more irrigation water to intensify cropping systems during the dry season (e.g. winter vegetable, spring rice) // 13- Labor requirement peaks: Not enough labor force to harvest rice in time. Young people go to work in towns. Would like to get rice harvester machine to speed up the harvest and avoid losses by rats and birds // 14- Information sharing: Lack village office facilities. Would like to get village loud speaker for communication and information sharing in the village // 15- Sanitation, toilets: The latrines are full. Would need equipment to empty them // 16- Market place - opportunities: Would like to get more permanent market place to provide opportunity for villagers to sell their products // 17- No electricity: No connection to the national electricity grid // 18- Education - school: Not enough teachers, long distance walk to go to school // 19- Pest damages to crops: Rats eat maize's and rice seeds, grasshoppers eat maize's leaves // 20- Natural disasters - floods droughts // 21- Human health: No health station, long distance to the nearest health station // 22- Lack technical knowledge // -- source: 'problem census men' and 'problem census women'
pc_rank	integer	rank from the last serious problem to the least serious -- source: 'problem census men' and 'problem census women'
pc_sexe	character varying	men, women or mixed group -- source: 'problem census men' and 'problem census women'

b. Household scale

Rapid and detail survey

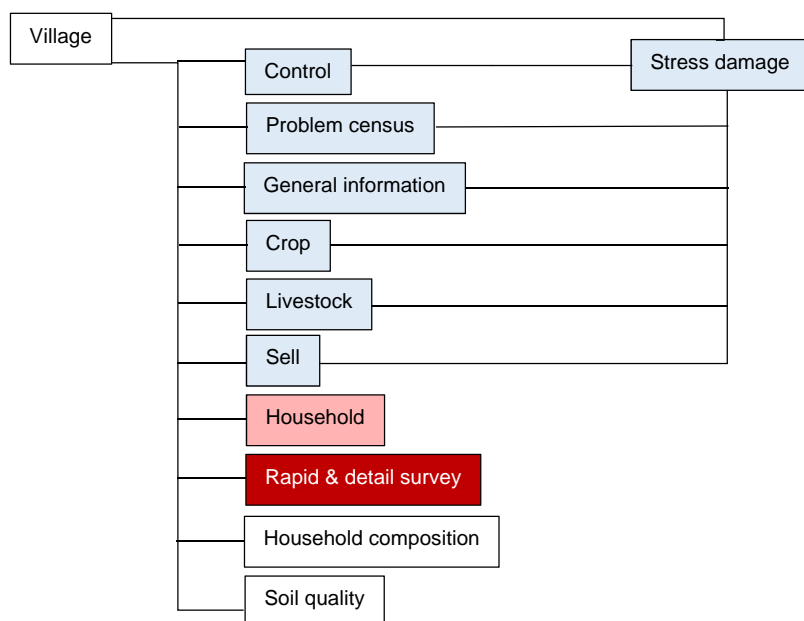


20 RAPID_DETAIL_SURVEY		
nb columns: 96		
Name	Data type	Comments
rds_village_name	character varying	
rds_village_id	integer	
rds_year	integer	
rds_id	integer	
rds_name_lao	character varying	
rds_name_en	character varying	
rds_unit	integer	
rds_registration	integer	
rds_main_duty	character varying	
rds_status	character varying	
rds_nb_members	integer	
rds_nb_women	integer	
rds_nb_labor_force	integer	
rds_nb_children_0_6	integer	
rds_nb_children_0_6_school	integer	
rds_nb_children_6_15	integer	
rds_nb_children_6_15_school	integer	
rds_nb_children_15_18	integer	
rds_nb_children_15_18_school	integer	
rds_paddy_rice_area_kg	real	
rds_paddy_rice_area_ha	real	
rds_paddy_rice_prod	real	
rds_upland_rice_area_kg	real	
rds_upland_rice_area_ha	real	
rds_upland_rice_prod	real	
rds_crop1_name	character varying	
rds_crop1_area	real	
rds_crop1_prod	real	
rds_crop1_income	real	
rds_crop2_name	character varying	
rds_crop2_area	real	
rds_crop2_prod	real	
rds_crop3_name	character varying	
rds_crop3_area	real	
rds_crop3_prod	real	
rds_nb_buffaloes	integer	
rds_nb_buffaloes_vaccinated	integer	
rds_nb_buffaloes_dead_last_year	integer	
rds_nb_cattle	integer	
rds_nb_cattle_vaccinated	integer	
rds_nb_cattle_dead_last_year	integer	
rds_nb_goats	integer	
rds_nb_goats_vaccinated	integer	
rds_nb_goats_dead_last_year	integer	
rds_nb_pigs	integer	
rds_nb_pigs_vaccinated	integer	
rds_nb_pigs_dead_last_year	integer	
rds_nb_fish_pond	integer	
rds_nb_house_walls	integer	
rds_nb_tv	integer	
rds_nb_rice_mill	integer	
rds_nb_motorcycle	integer	

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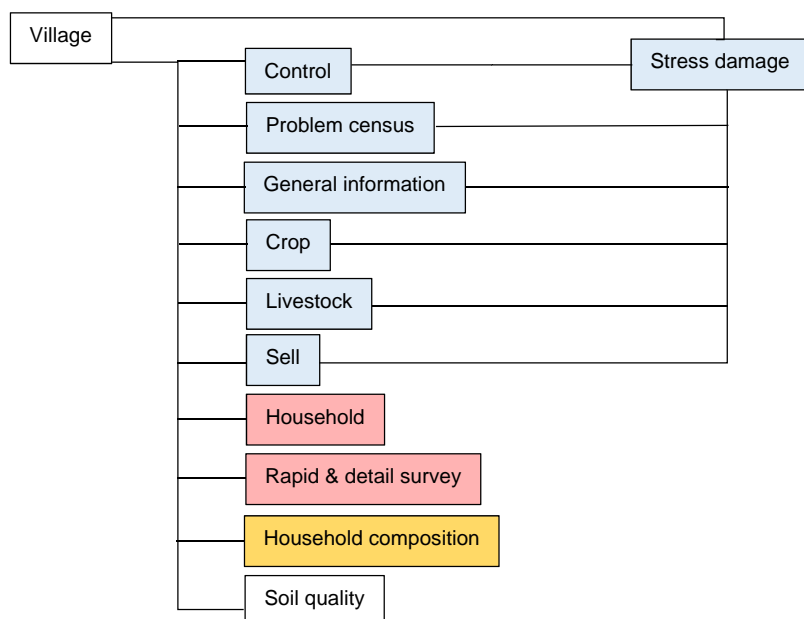
rds_nb_hand_tractor	integer	
rds_nb_big_tractor	integer	
rds_nb_car_truck	integer	
rds_nb_backpack_sprayer	integer	
rds_nb_motor_pump_sprayer	integer	
rds_herbicide_expenses	real	
rds_income_ntfp	real	
rds_income_rice	real	
rds_income_cash_crop	real	
rds_income_livestock	real	
rds_income_handicraft	real	
rds_renting_services	real	
rds_trade	real	
rds_salary	real	
rds_other_income	real	
rds_pending_debts	real	
rds_nb_members_in_another_province	integer	
rds_nb_members_in_another_country	integer	
rds_water_tap	integer	
rds_crop_association_upland_area	integer	
rds_nb_crops_grown_last_year	integer	
rds_nb_legume_species	integer	
rds_nb_rice_varieties	integer	
rds_off_season_crops_in_paddy_area	integer	
rds_old_fallow_this_year	integer	
rds_old_fallow_last_year	integer	
rds_manure_fertilisation	integer	
rds_compost_fertilisation	integer	
rds_use_chemical_fertiliser	integer	
rds_manual_nb_weeding_upland_rice_last_year	real	
rds_use_herbicide	integer	
rds_use_insecticide	integer	
rds_insecticides_expenses_last_year	real	
rds_soil_tillage_tractor	integer	
rds_people_hired_last_year	integer	
rds_mutual_help_last_year	integer	
rds_improved_pasture_area	real	
rds_cut_carry_system	integer	
rds_hay_production	integer	
rds_silage_production	integer	
rds_big_livestock_named	integer	
rds_investment_paddy_rice	real	
rds_investment_roads_production_areas	real	
rds_rapid_detail_survey	character varying	

Household



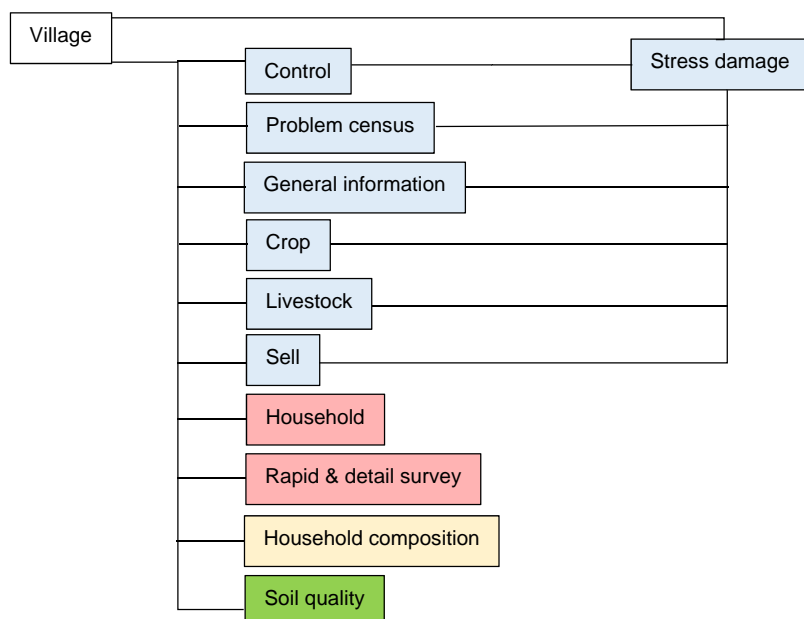
21_HOUSEHOLD		
nb columns: 7		
Name	Data type	Comments
hh_village_name	character varying	
hh_village_id	integer	
hh_id	integer	id of household
hh_head_name	character varying	name of household head
hh_no_registration	integer	
hh_no_rapid_survey	integer	
hh_no_unit	integer	

c. Individual scale



21_HOUSEHOLD_COMPOSITION		
nb columns: 13		
Name	Data type	Comments
hhc_village_name	character varying	
hhc_village_id	integer	
hhc_year	integer	year of the survey
hhc_household_id	integer	id of household
hhc_member_id	integer	id of the household member
hhc_position	character varying	position of the member: / HHH = household head (can be a woman) / HHW = household head wife (or husband) / C1, C2, C3, ... = 1st child, 2nd child, 3rd child, ... / DIL1, DIL2, ... = daughter in low of the 1st child (C1), daughter in low of the 2nd child (C2), ... / SIL1, SIL2, ... = son in low of the 1st child (C1), son in low of the 2nd child (C2), ... / GC = grand child / O = other people living in the household: parents, brothers, sisters of the HHH, aunts, nephews, brothers and sisters in low, etc.
hhc_age	integer	
hhc_live_in_hh	boolean	does the member currently live in the household ? (TRUE or FALSE) // Children attending school elsewhere but coming back home on week-ends or holidays do count as living in the household
hhc_gender	character varying	gender of household member: M if male, F if female
hhc_birth_year	integer	
hhc_death_year	integer	
hhc_go_school	boolean	does household member still attend school ? (TRUE or FALSE)
hhc_education_level	character varying	education level of household member: / KG = kindergarten / P1 - P5 = primary 1 to 5 / M1 - M7 = secondary 1 to 7 / Univ = university / 0 = no education

d. Plot scale



40_SOIL_QUALITY		
nb columns: 47		
Name	Data type	Comments
sq_number	integer	
sq_land_use	character varying	
sq_rep	numeric	
sq_position	character varying	
sq_evaluation_date	character varying	
sq_evaluator_name	character varying	
sq_evaluator_position	character varying	
sq_province_name	character varying	
sq_district_name	character varying	
sq_kumban_name	character varying	
sq_village_name	character varying	
sq_field_owner_name	character varying	
sq_field_location	character varying	local name of field location if any
sq_latitude_degrees	numeric	
sq_latitude_minutes	numeric	
sq_latitude_seconds	numeric	
sq_latitude_decimal	numeric	
sq_longitude_degrees	numeric	
sq_longitude_minutes	numeric	
sq_longitude_seconds	numeric	
sq_longitude_decimal	numeric	
sq_elevation	character varying	
sq_topography	character varying	steep slope / moderate slope / flat
sq_soil_type	character varying	clay / clay loam / loamy clay / loam / sand
sq_surface_stone	character varying	no stone / few stones / many stones
sq_crop	character varying	main crop + specie_nb + years
sq_sowing_date	character varying	

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sq_previous_crop	character varying	
sq_tillage_system	character varying	motorized ploughing, ploughing with hoe, slash and burn etc.
sq_crop_growth_note	numeric	1 to 3: uneven stand, stunted crop growth, discolouring common / 4 to 6: some uneven stand, stunted growth, slight discolouring / 7 to 9: even stand, vigorous & uniform crop growth
sq_soil_erosion	character varying	soil erosion: 1 to 3: many gullies, 5-10 cm deep or more, crop damage, siltation / 4 to 6: beginning signs of gullies, gullies < 5cm / 7 to 9: no visible signs of erosion
sq_water_run_off	numeric	water run-off, infiltration: 1 to 3: excessive runoff, ponding on soil surface / 4 to 6: some runoff, rain soaks in, some ponding / 7 to 9: very little runoff /ponding, rain soaks into soil quickly
sq_crop_residue	numeric	crop residue at sowing: 1 to 3: <30% of soil surface is covered with crop residue; 4 to 6: 30-60% of soil surface is covered with crop residue 7 to 9: >60% soil surface covered with crop residue
sq_soil_color	numeric	surface soil color: 1 to 3: white, light gray, or red / 4 to 6: dark gray or light brown / 7 to 9: dark brown or black /
sq_soil_smell	numeric	soil surface smell: 1 to 3: little or no odor / 4 to 6: some odor, mineral odor / 7 to 9: pungent, sweet "earthy" odor /
sq_soil_structure	numeric	1 to 3: cloddy, hard, crusty aggregates hard to break 4 to 6: somewhat blocky, some visible crumbly structure 7 to 9: crumbly, mellow or loamy and easily worked
sq_soil_compaction	numeric	soil compaction, crusting: 1 to 3: severe compaction, cannot push probe into soil, crusting is prevalent / 4 to 6: some or few restrictions, can push probe soil with force, some soil crusting / 7 to 9: little to none; probe enters soil easily, no soil crusting
sq_biological_activity	numeric	biological activity: 1 to 3: few insects, worms, root channels or fungi in the soil / 4 to 6: some insects, worms root channels or fungi in the soil / 7 to 9: many insects, worms root, channels or fungi in the soil
sq_total_score	numeric	
sq_soil_ph	numeric	
sq_n	character varying	N total (mg/kg) - method of Kjeldahl
sq_p	character varying	P available (mg/kg) - method of Bray and Kurtz
sq_k	character varying	K available (mg/kg) - method of Jone
sq_om	character varying	
sq_last_rain	character varying	year of the last rain ? Data problems
sq_other	character varying	
sq_geom	geometry	