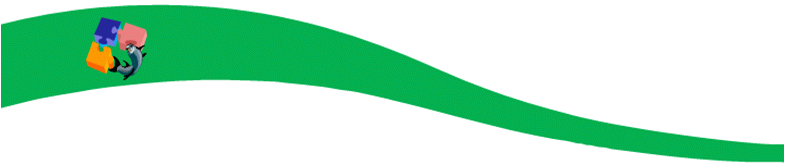
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**Rice Field Fishery Enhancement Project**

*Project funded by USAID*

**RICE FIELD FISHERY ENHANCEMENT PROJECT**

**DATABASE REPORT**

**Metadata**

**2016.08.03**

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# Purpose of the Report

The purpose of this document is to describe all the variables of the 70 tables of the Rice Field Fishery Enhancement Project database (*2016.08.03 Rice Field Fishery Database REFERENCE.accdb*). The description of the variables gives context on how the data was sampling and can provide hints on how the data could be interpreted in future analysis.

Also, all the modifications and errors corrections that occurred in the different tables of the database are listed in the document *2016.08.03 Rice Field Fishery Database \_ Modifications & Errors Correction REFERENCE.docx.*

# Database Overview

The current database is the result of the merging of three major databases containing Rice Field Fishery Enhancement Project data collected by WorldFish from November 2012 to January 2016.

The project had the goal to increase the productivity and the sustainability of the rice field fishery system. Interventions and public awareness took place in forty community fish refuges (CFR) around the Tonle Sap Lake and among the communities living nearby those CFR. To evaluate the impact of the actions undertaken, biological surveys were conducted and households living nearby were interviewed on a regularly base about their livelihood.

Other data are included in this database: rainfall during the project, physical characteristics of each CFR, interventions undertaken, fundraising, governance level and fish perception. The general description for each of those supplementary data is included in the variable description section (Section 3).

## Main Survey conducted

### Biological Monitoring Survey

Biological monitoring surveys were conduct among the 40 community fish refuges four times a year at peak flood(November), receding flood (February), lowest water level (May) and rising flood (September) from November 2012 to November 2015.

### Catch & Consumption Survey

During the project, catch and consumption survey were conducted every 2 months among 400 households living near a community fish refuge (10 households per CFR) from November 2012 to November 2015.

### Livelihood Survey

In general, 16 households living within 1 km of one of the 40 selected community fish refuge were interviewed at the beginning (2012) and at the end (2015) of the project about their livelihood.

## Relationships between tables

All the tables are linking together directly or indirectly by using the individual identification number of each household and the community fishery refuge (CFR) name.

# Descriptions of the variables

In this section, variables of the database are described based on the questionnaires of the different surveys and the help of the project staffs.

## Monthly Rainfall 2012-2015

The rainfall data for the four provinces of the project from 2012 to 2015 have been provided by the Department of Meteorology (Contact: Mr. Oum Rina, rynaoum63@gmail.com, 016 756 389).

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| Station | Rainfall station  Four stations located in: Battambang, Kampong Thom, Pursat and Siem Reap. | Text |
| Year | Year | Number |
| Month | Month | Text |
| Monthly\_Rainfall | Total rainfall for the month | mm |

## General CFR Details

This table provides general characteristics for each 40 CFR. The data have been gathered by the NGO on the field, the CFR committee itself and WorldFish. (40 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| CFR | Name of the CFR (40 CFRs) | Text |
| Village | Village where the CFR is located | Text |
| Commune | Commune where the CFR is located | Text |
| District | District where the CFR is located | Text |
| Province | Province where the CFR is located | Text |
| Agro Eco-Zone | Name of the agro-ecological zone where the CFR is located:  *Upland Irrigated;*  *Upland crop/Rainfed Rice;*  *Rainfed Lowland Rice;*  *Lowland-Deepwater Rice;* | Text |
| Category | Category of the CFR:  *1,2,3 or 4* | Number |
| Category Name | Description of the category type. | Text |
| AreaWet | Area of the CFR during the wet season | Ha |
| DepthWet | Depth of the CFR during the wet season | m |
| Conservation\_Area | Superficies of the conservation area.  \*Sometimes, the conservation area is bigger than the CFR itself. | Ha |
| Large\_WB | Does the CFR is part of a larger water body (LWB)? | Yes/No |
| LWB\_Depth\_Wet | Depth of the (LWB) during the wet season | m |
| LWB\_Area\_Wet | Area of the (LWB) during the wet season | Ha |
| Dist\_TLS | Distance from the CFR to the Tonle Sap Lake | Km |
| Dist\_Prov\_Capital | Distance from the CFR to the provincial capital | Km |
| Dist\_Market | Distance from the CFR to the market | Km |
| Dist\_Village | Distance from the CFR to the village | Km |
| Drought\_Frequency | Drought frequency evaluated by the CFR committee :  *1 - Never dry up;*  *2 - 1-10 year dries up, very rare;*  *3 - 2-3 times in 10 year;*  *4 - Quite frequency every other year or 5 times in 10 years;*  *5 - Always dry up every year without fail;* | Number |
| Flooding\_Frequency | Flooding frequency evaluated by the CFR committee :  *1 - Never floods;*  *2 - 1-10 year floods, very rare;*  *3 - 2-3 times floods in 10 year;*  *4 - Quite frequency every other year or 5 times in 10 years;*  *5 - Always floods every year without fail;* | Number |
| Dist\_Channel\_CFR-RF | Distance from the CFR to the rice fields. | m |
| RF\_ZOI\_Area\_Wet | Area of rice fields connected to the CFR, within the zone of influence (ZOI), during the wet season | Ha |
| Num\_Villages | Number of villages in the zone of influence (ZOI) of the CFR | Number |
| Num\_HHs | Number of households in the zone of influence (ZOI) of the CFR | Number |
| Meth\_Cult\_1 | Main rice cultivation method used by households | Text |
| Meth\_Cult\_2 | Second rice cultivation method used by households | Text |
| Meth\_Cult\_3 | Third rice cultivation method used by households | Text |
| Prim\_Occup | Households primary occupation | Text |
| Sec\_Occup\_1 | Households secondary occupation | Text |
| Sec\_Occup\_2 | Households tertiary occupation | Text |
| Sec\_Occup\_3 | Households quaternary occupation | Text |
| Sec\_Occup\_4 | Households quinary occupation | Text |
| Year\_commune&FIAC | Year the executive committee was formed and approved by FiAC and commune councilor. | Number |
| Num\_Comm\_Men | Number of men in the executive committee | Number |
| Num\_Comm\_Women | Number of women in the executive committee | Number |

## CFR Characteristics 2012-2015

This table follows mostly the variation of some CFR characteristics during the dry season form May 2012 to May 2015. The data was collected by local NGO and CFR committee. (160 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| CFR\_Name | Name of the CFR (40 CFRs) | Text |
| Year | Year (2012-2015) | Number |
| Area\_Dry | Area of the CFR during the dry season | Ha |
| Depth\_Dry | Depth of the CFR during the dry season | m |
| Inlet/outlet(#) | Number of inlet and outlet (simple canal, spillway, fix watergate, etc.). Basically anything that allow the fish to move out and in of the CFR | Number |
| EcoShelter | Area of eco-shelter in the CFR | m2 |
| TrapPond\_# | Total number of trap pond within the zone of influence of the CFR. | Number |
| CementRing\_# | Total number of cement rings within the zone of influence of the CFR. | Number |
| Canal\_# | Number of canal connected to the CFR | Number |
| Canal\_distance | Distance of the canal connected to the CFR | m |
| # months RF connect to CFR | Number of months RF were connected to the CFR during the year | Number |
| BroodStock\_# | Number of brood stock added to the CFR during the year | Number |
| FingerlingNumber | Number of fingerling added to the CFR during the year | Number |

## CFR interventions 2013-2016

This table provides descriptions of the interventions implemented throughout the RFFEP. Action plan and capacity building intervention data was recorded by local NGOs in the field and the CFR committees. Capacity building interventions were manually coded from each CFR brochure according to key themes. The data includes intervention actions implemented annually until March 2016. (140 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| CFR | Name of the CFR | Text |
| Year | Year | Number |
| Channel | Creation or improvement of channels around a CFR, yes (1) or no (0) | Binary |
| Chan\_Notes | Channels dimensions and/or details interventions | Text |
| In\_Out | Creating an inlet or outlet to or from CFR (includes spillways and watergates), yes (1) or no ( 0) | Binary |
| In\_Out\_Num | Number of inlet/outlet installed | Number |
| In\_Out\_Type | Type (inlet/outlet, spillway, watergate, etc.) | Text |
| Dam | Building dams or dikes to retain water in CFRs, yes (1) or no (0) | Binary |
| Dam\_Notes | Dam repair or new installation | Text |
| Pump | Pump water into CFR, yes (1) or no (0) | Binary |
| Deep | Mention of a CFR being deepened, yes (1) or no (0) | Binary |
| De\_Dimen | Dimension of area deepened | Text |
| Ecoshelter | Building or installing eco-shelters/samarahs, yes (1) or no (0) | Binary |
| Eco\_Area | Ecoshelter area | m2 |
| CementRing\_CFR | Cement rings installed in CFR to improve habitat | Binary |
| Cem\_num\_CFR | Number of cement rings installed in CFR | Number |
| BambooFrame | Building or installing bamboo to manage vegetation, yes (1) or no (0) | Binary |
| Forest | Planting of flooded forests, yes (1) or no (0) | Binary |
| For\_num | The number of saplings planted | Number |
| Fingerlings | Stocking of CFR with fingerlings, and the number and species, yes (1) or no (0) | Binary |
| Fin\_num | Quantity of fingerlings added | Number |
| Fin\_spp1  Fin\_spp2  Fin\_spp3  Fin\_spp4  Fin\_spp5  Fin\_spp6 | Fingerling species added | Text |
| Broodstock | Stocking CFR with broodstock (mature individuals) | Binary |
| Brood\_Weight | Weight of broodstock added | kg |
| Bro\_spp1  Bro\_spp2  Bro\_spp3  Bro\_spp4  Bro\_spp5 | Broodstock species added | Text |
| Fertilizer | Fertilizer added to CFR, yes (1) or no ( 0) | Binary |
| Vegetation | Add (1) or remove (-1) vegetation to/from CFR | Binary |
| Veg\_Notes | Area (m2) or number of times activity is carried-out (e.g. x2 if vegetation is removed twice) | Text |
| CFRExpand | Existing CFR is expanded within the same water body, yes (1) or no (0) | Binary |
| Exp\_Dimen | Dimensions of area expanded | Text |
| CFRNew | New CFR is established within the localized region, yes (1) or no (0) | Binary |
| New\_Dimen | Dimensions of new CFR | Text |
| RefugePond | Installation of refuge ponds in catchment region, yes (1) or no (0) | Binary |
| Ref\_Num | Number of refuge ponds installed | Number |
| CementRings\_Catch | Cement rings installed in catchment region, yes (1) or no (0) | Binary |
| Cem\_Num\_Catch | Number of cement rings installed | Number |
| Demarcate | Installation of poles, flags or barriers demarcating CFR boundaries | Binary |
| Num\_poles | Number of demarcation poles | Number |
| MeasPole | Installation of a measurement pole to monitor water depth, yes (1) or no (0) | Binary |
| Signs | Installation of signboards to denote the CFRs presence and rules, yes (1) or no (0) | Binary |
| Sign\_Num | Number of signs installed | Number |
| Path | Construction of minor infrastructure, including pathways, small bridges, etc., to reach or patrol the CFR, yes (1) or no (0) | Binary |
| Path\_Notes | Type of path and/or length | Text |
| GuardingEquip | Equipment to assist with guarding/patrols, yes (1) or no (0) | Binary |
| EquipDetails | Type of equipment (e.g. flashlights, radios, and other) | Text |
| Boat | CFR purchase of a boat to aid in CFR management and patrols, yes (1) or no (0) | Binary |
| Guardhouse | Construction or improvement of a guardhouse, yes (1) or no (0) | Binary |
| Fence | Fencing the region around a CFR to exclude livestock and/or people, yes (1) or no (0) | Binary |
| Fence\_Length | Length of fence installed | Text |
| MedOther | Other medium infrastructure or equipment purchases, yes (1) or no (0) | Binary |
| MedOth\_Notes | Description of other medium infrastructure or equipment purchases | Text |
| Aw\_CFRs | Awareness raising on CFR benefits, management, functionality, governance, etc., yes (1) or no (0) | Binary |
| Aw\_RFF | Awareness raising on RFF benefits, management, functionality, governance, etc., yes (1) or no (0) | Binary |
| Aw\_Small\_Fish | Awareness raising on benefits of small fish for consumption, yes (1) or no (0) | Binary |
| Aw\_Law | Awareness raising on fisheries law, illegal fishing awareness and practices, yes (1) or no (0) | Binary |
| Aw\_Other | Awareness raising on other topics, including sanitation, pesticides, and anything else mentioned, yes (1) or no (0) | Binary |
| Aw\_Oth\_Notes | Description of other awareness raising topic | Text |
| Meet\_CC | CFR Committee engages with Commune Council in regular meetings, yes (1) or no (0) | Binary |
| Meet\_CFR | CFR committee holds regular meetings, yes (1) or no (0) | Binary |
| Coach\_MgmtPlan | CFR Committee is coached on management of CFRs, including creation of management plans, yes (1) or no (0) | Binary |
| Coach\_Bookkeep | CFR Committee is coached on book-keeping skills, yes (1) or no (0) | Binary |
| Coach\_Presentation | CFR Committee is coached on presentation skills, yes (1) or no (0) | Binary |
| Coach\_Fundraising | CFR Committee is coached on fundraising, yes (1) or no (0) | Binary |
| Coach\_Skill | Coaching on other skills | Binary |
| Sk\_Notes | Description of other skill | Text |
| Reflect | CFR Committee self-reflection, experience sharing, self- assessments on management plan implementation | Binary |
| Coach\_Other | CFR Committee is coached on other topics not mentioned above | Binary |
| Coach\_Oth\_Notes | Description of other coaching topic | Text |
| Elect | Election held for CFR committee, including re-elections, yes (1) or no (0) | Binary |
| Bylaw | CFR adopts or adjusts bylaws, yes (1) or no (0) | Binary |
| Event | Mention of fundraising efforts other than those recorded in fundraising tables, yes (1) or no (0) | Binary |
| Event\_Notes | Description of fundraising event | Text |
| Saving\_Grp | A saving group is formed, yes (1) or no (0) | Binary |
| SavGrp\_Notes | Number of members in saving group | Text |
| Econ\_Pond | Funds raised through economic ponds, yes(1) or no (0) | Binary |
| Fund\_Other | Funds raised through other activities, yes(1) or no (0) | Binary |
| Fund\_Oth\_Notes | Type of other fundraising activity | Text |
| Patrol | CFR committee conducts/facilitates regular patrols, yes (1) or no (0) | Binary |
| Pat\_Notes | Frequency of patrols (this value was not always given) | Text |
| CIP\_Integration | CFR activity integrated into CIP, yes (1) or no (0) | Binary |
| Other\_Activity1  Other\_Activity2 | Mentions of any CFR efforts not described above (excluding BioM, CCM, or livelihoods survey or recording of fundraising activity) | Text |

## CFR Interventions Summary

This table provides the total number of interventions implemented or supported by the different stakeholders during the project (2013-2016). (40 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| CFR | CFR name | Text |
| CIP\_integrate | Number of actions integrated into Community Investment Plan (CIP) | Number |
| CC\_supported | Number of actions supported by Commune Council | Number |
| CFR\_implement | Number of actions implemented by CFR Committee | Number |
| FiAC | Number of actions supported by Fisheries Administration (FiA) | Number |
| NGO | Number of actions supported by non-governmental organizations (NGO) | Number |
| PrivateSector | Number of actions supported by the private sector | Number |
| Pagoda | Number of actions supported by pagodas | Number |
| Other | Number of actions supported by groups other than those mentioned above. | Number |
| Total\_outside | Total number of actions implemented, excluding those acts implemented by WorldFish. This value was determined by summing the quantities of the previous seven variables. | Number |
| Total\_RFFEP | Total number of actions implemented by WorldFish through the Rice Field Fisheries Enhancement Project (RFFEP) | Number |

## CFR Fundraising 2013-2016

This table provides the amounts in USD collected by the different stakeholders during the project (2013-2016). (40 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| CFR | CFR name | Text |
| 2013-Pagoda  2013-HHs  2013-CC  2013-OTHER  2014-Pagoda  2014-HHs  2014-CC  2014-OTHER  2015-Pagoda  2015-HHs  2015-CC  2015-OTHER  2016-Pagoda  2016-HHs  2016-CC  2016-OTHER | Annual amount (USD) fundraised by pagoda, households, commune council (CC) and others. | USD |

## Governance Scores 2012 & 2015

Governance scores for each CFR were assessed in 2012 and 2015 based on 4 to 6 indicators for each broad governance theme. CFR committee, local authorities and community people were asked to give a score from 1 to 3 for each indicator and afterward an average score was calculated. (80 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| CFR\_Name | Name of the CFR (40 CFRs) | Text |
| Year | Year (2012;2015) | Number |
| Structure | Organizational management  CFR committee has regular meetings, bylaws, and defined roles and communication among executive members. | Number |
| Planning | Planning and implementation  CFR committee has developed priority action plans, implemented the action plans, monitored the changes, and can solve their problems and conflicts. | Number |
| Fundraising | Resource mobilization  CFR committee has collected funds from various sources,  uses the funds in a transparent way, keeps records  and participates in decision-making processes. | Number |
| Networking | Linkages and networking  CFR committee has a good relationship with local authorities, the Fisheries Administration Cantonment, other traditional groups, NGOs working in their communities, and the private sector. Some action plans have been integrated into commune plans and have received support from various stakeholders. The committee has attended commune council meetings. | Number |
| Representation | Representation and participation  CFR committee has gender diversity among the committee members and has various representatives from different locations in the communities who participate in planning, decision-making and implementation of action plans. | Number |

Fish\_Perception

Four hundreds household have been asked their perception for different fish genus. Household gave a mark for 1 to 10 for each genus proposed on the questionnaire (10=genus appreciated the most by HH and 1=genus not appreciated by HH). They could also mark other genus of their choice. (400 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| Household\_ID | Household identification number | Number |
| Respondant\_Name | Name of the respondent. | Text |
| Province | Province where the household and the CFR are located | Text |
| Puntius  Parambassis  Cyclocheilichthys  Mystus  Esomus  Pangasianodon  Barbonymus  Notopterus  Channa  Anabas  Clarias  Enhydris | Fish genus that household had to mark between 1 to 10:  *10 = genus appreciated the most by HH; 1 = genus not appreciated by HH;* | Number |
| Macrognathus  Ompok  Trichopodus  Trichopsis  Hemibagrus  Pristolepis  Oreochromis  Monopterus  Thynnichthys  Mastacembelus  Wallago attu  Barbonymus altus | Other fish genus that some households had marked from 1 to 10:  *10 = genus appreciated the most by HH; 1 = genus not appreciated by HH;* | Number |

Species\_List

The species table provide information on the species caught during the bio monitoring survey and by households during the week before the catch and consumption survey. (178 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| Family | Family of the species | Text |
| Genus | Genus of the species | Text |
| SpeciesCode | Unique code for each species | Number |
| SpeciesName | Name of the species. | Text |
| Group | The species are devised in 3 groups:  *Fish, OAA or Plants* | Text |
| Sub-group | Provides more information on what type of fish or OAA the species is:  *Fish: Black; Grey; White; N/A (Unknown fish) OAA: bird; Crab; Frog; Aquatic insect; Shrimp; Snail; Snake; Turtle;* | Text |
| Exotic | Identified when a species is an exotic one. | Text |
| QuestionnaireGroup | Identified the species group used for the questions 7 and 8 of the catch & consumption survey. | Text |

Biological Monitoring\_BasicInfo

The variables in this table provide information on water quality and habitat features for each CFR surveyed 13 times between November 2012 and November 2015. There is 518 records in the tables, it should be 520 records (40CFRs X 13 occasions = 520 records), but the CFR Boeng Tramses haven’t been surveyed twice (occasion 2 and 3), because the CFR was completely dry.

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| CFRName | Name of the CFR (40 CFRs) | Text |
| Occasion | Survey number (1-13) : *1-Nov2012; 2-Fev2013; 3-May2013; 4-Aug2013; 5-Nov2013; 6-Fev2014; 7-May2014; 8-Aug2014; 9-Nov2014; 10-Fev2015; 11-May2015; 12-Aug2015; 13-Nov2015;* | Number |
| Date\_s | Date of start of the survey | MM/DD/YYYY |
| Time\_s | Time of start of the survey | 00:00-24h |
| Date\_e | Date of end of the survey | MM/DD/YYYY |
| Time\_e | Time of end of the survey | 00:00-24h |
| sitePrepareDate | Date when the field staff went to each CFR to prepare them before the survey (e.g. Remove the aquatic plants of the CFR to allow the sampling). | MM/DD/YYYY |
| TotalHours | Length of the survey. Difference between ‘Time\_e’ and ‘Time\_s’ | Hours.decimal |
| DayMoon | Phase of the moon during the survey.  *A full moon day count as “0”, one day before is “-1”, one day after is “1” and so on.* | Number |
| Illuminated | The percentage of dark moon | % |
| GaugeStart | Gauge level at the beginning of the survey; water level in the CFR | cm |
| GaugeFinish | Gauge level at the end of the survey; water level in the CFR | cm |
| RFWaterLevel | Rice field water level during the survey | Cm |
| GaugeCondition | Gauge pole condition in the CFR | Text |
| WaterTem | Water temperature of the CFR | OC |
| Secchi\_depth | Water transparency of the CFR: maximum depth the processor can still see the Secchi disk. | cm |
| Ph | pH value of the water of the CFR | - |
| Phosphate | Phosphate concentration in the CFR | mg/L |
| Nitrogen | Nitrogen concentration in the CFR | mg/L |
| Conductivity | Water conductivity of the CFR | µS/cm |
| Water sample taken | Inform where and how many water sample was took, but in fact for 489 records out of 518 it’s only written “Yes” | Text |
| Inflow | Water inflow in the CFR. It had been calculated by multiplying the cross surface of the inflow canal by the velocity of the water  **\* Not calculated for each CFR** | L/s |
| Outflow | Water outflow in the CFR. It had been calculated by multiplying the cross surface of the outflow canal by the velocity of the water **\* Not calculated for each CFR** | L/s |
| Category | Category of the CFR *(1,2,3 or 4)* | Number |
| AquaticPlantArea | Area of the CFR covered by aquatic plant | % |
| AquaticPlantDensity | Aquatic plant density in the CFR | % |
| BrushPark | Area covered by brush parks in the CFRs. Brush parks are eco-shelters (samrash) made out of tree branches which improve fish habitat.  **\*At the beginning of the project for some CFRs, brush parks were measured according to the number of branches instead of the area covered.** | m2 |
| Snag | Area covered by snags in the CFRs. Snags are eco-shelters (samrash) made of tree trunk which improve fish habitat. | m2 |
| IllegalFishingSeen | Presence or not of illegal fishing during the survey | Yes or No |
| WaterBird | Presence or not of water bird around the CFR and for some records the species and their abundance are noted in this field | Text |
| OtherAnimal | Presence or not of animal around the CFR and for some records the species and their abundance are noted in this field | Text |
| Weather | Weather at the moment of the survey | Text |
| PhotoTaken | Photo taken of the CFR | Yes/ No |
| SketchCFR | Sketch of the CFR | Yes/ No |

Biological Monitoring\_FormB

Each record (7813 records) of the table *Biological monitoring\_FormB* represents an event when a fishing gear was set to sample fish and other aquatic animal (OAA) of CFRs.

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| CFRName | Name of the CFR (40 CFRs) | Text |
| Occasion | Survey number (1-13) : *1-Nov2012; 2-Fev2013; 3-May2013; 4-Aug2013; 5-Nov2013; 6-Fev2014; 7-May2014; 8-Aug2014; 9-Nov2014; 10-Fev2015; 11-May2015; 12-Aug2015; 13-Nov2015;* | Number |
| GearType | Type of fishing gear used to sample fish and other aquatic animal (OAA) in CFRs at different occasion:  *Gill net – All occasions 1-13  Fyke trap – Occasions 1; 5; 9; 13 Hook long line - Occasions 2-4; 6-8; 10-12* | Text |
| ReplicateNo | For each occasion, each type of fishing gear had been set up to 8 times and this field identified each set (replicate) from 1 to 8.  *\*Depending on the size of the CFR and the conditions during the sampling, less than 8 fishing gear could have been set.* | Number |
| Date\_S | Date when the fishing gear was installed | MM/DD/YYYY |
| Time\_S | Time when the fishing gear was installed | 00:00-24h |
| Date\_F | Date when the fishing gear was removed | MM/DD/YYYY |
| Time\_F | Time when the fishing gear was removed | 00:00-24h |
| Processor | Name of the processors who conducted the sampling | Text |
| GillnetLength | This field indicate the length of the gill net used. Most of the time 18m long gillnet were set, but sometime the CFR was too small to use those so 9m long gillnets were used. Each gillnet were composed of 6 sections with mesh size of *1, 2, 4, 6, 8 and 10 cm.*  *1 = 18m long (6 sections of 3m each)*  *2 = 9m long* *(6 sections of 1.5m each)* | Number |
| DepthShore | Water depth at the shore side of the fishing gear. | Meters (m) |
| DepthEnd | Water depth at the deep end of the fishing gear. | Meters (m) |
| Photo | Photo taken | Yes or No |
| Note | Fields where investigator could write notes. Most of the time the field is empty or it is written “normal”. | Text |

Biological Monitoring\_FormBSub

This is the major table of the biological monitoring survey where each record provides the total number and the total weight of all individuals of a same species caught per replicate, fishing gear and occasion. The length and the weight of the smaller and bigger individual of the catch are also provided. When there was no catch with a fishing gear, it was not recorded in this table so the records in this table represent only those from *Biological Monitoring\_FormB* when fish or other aquatic animal were caught (28,220 records).

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| CFRName | Name of the CFR (40 CFRs) | Text |
| Occasion | Survey number (1-13):  *1-Nov2012; 2-Fev2013; 3-May2013; 4-Aug2013; 5-Nov2013; 6-Fev2014; 7-May2014; 8-Aug2014; 9-Nov2014; 10-Fev2015; 11-May2015; 12-Aug2015; 13-Nov2015;* | Number |
| GearType | Type of fishing gear used to sample fish and other aquatic animal (OAA) in CFRs at different occasion:  *Gill net – All occasions 1-13  Fyke trap – Occasions 1; 5; 9; 13 Hook long line - Occasions 2-4; 6-8; 10-12* | Text |
| ReplicateNo | For each occasion and gear type, fishing gear had been set up to 8 times. This field numbered each set from 1 to 8. | Number |
| Speciescode | Code associated with the species caught by the fishing gear. | Number |
| SpeciesName | Name of the species caught by the fishing gear. Sometime the identification stops at the genus. | Text |
| No\_fish | Total number of individuals of the same species caught with a fishing gear for a specific occasion and replicate. | Number |
| Total weight | Total weight of individuals of a same species caught with the fishing gear for each occasion and replicates.  *\* During the first survey (Occasion 1), the scales used were not precise enough to weight catch lighter than 1g so there was no value in this field for 300 records.* | g |
| Min\_length | Size of the smallest fish caught | cm |
| Max\_length | Size of the biggest fish caught | cm |
| Min\_weight | Weight of the smallest fish caught | g |
| Max\_weight | Weight of the biggest fish caught | g |
| condition | Condition of the fish caught | Text |
| NoProcessFormB | Number of fish which had been measured individually. The results are presented in *tblFormCSub.* | Number |
| Disposal | Number of fish which had not been measured individually. | Number |

Biological Monitoring\_FormC

For each species caught per replicate, gear type and occasion, a sample of 10 individuals randomly chosen were measured. The table *Biological monitoring\_FormC* (518 records) provides general information (time and processor) about the detailed records of table *Biological monitoring\_FormCSub*.

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| **CFRName** | Name of the CFR (40 CFRs) | Text |
| Occasion | Survey number (1-13):  *1-Nov2012; 2-Fev2013; 3-May2013; 4-Aug2013; 5-Nov2013; 6-Fev2014; 7-May2014; 8-Aug2014; 9-Nov2014; 10-Fev2015; 11-May2015; 12-Aug2015; 13-Nov2015;* | Number |
| Processor | Name of the processors who conducted the sampling. | Text |
| Date\_S | Starting date when individual measurements were taken. | MM/DD/YYYY |
| Time\_S | Starting time when individual measurements were taken. | 00:00-24h |
| Date\_F | Date when the measurement of the individuals was over. | MM/DD/YYYY |
| Time\_F | Time when the measurement of the individuals was over. | 00:00-24h |

Biological Monitoring\_FormCSub

The table *Biological monitoring\_FormCSub* (102,296 records) presents the value of those individuals’ measurements (length and weight). When there was less than 10 individuals for a same species all of them were measured.

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| ID | Automatic field which had created an ID number for each records. Records don’t have a unique number; duplicates are present. | Number |
| CFRName | Name of the CFR (40 CFRs) | Text |
| Occasion | Survey number (1-13):  *1-Nov2012; 2-Fev2013; 3-May2013; 4-Aug2013; 5-Nov2013; 6-Fev2014; 7-May2014; 8-Aug2014; 9-Nov2014; 10-Fev2015; 11-May2015; 12-Aug2015; 13-Nov2015;* | Number |
| GearType | Type of fishing gear used to sample fish and other aquatic animal (OAA) in CFRs at different occasion:  *Gill net – All occasions 1-13  Fyke trap – Occasions 1; 5; 9; 13 Hook long line - Occasions 2-4; 6-8; 10-12* | Text |
| ReplicateNo | For each occasion and gear type, fishing gear had been set up to 8 times. This field numbered each set from 1 to 8. | Number |
| Speciescode | Code associated with the species caught with the fishing gear. | Number |
| SpeciesName | Name of the species caught with the fishing gear. Sometime the identification stops at the genus. | Text |
| Fork\_length | Distance between the end of the snout of the fish and the end of the middle ray of his caudal fin. | cm |
| weight | Weight of the fish | g |
| Notes | Notes on the condition of the fish. | Text |

Biological Monitoring\_Investigators

This table provide information about the investigators who had participated in the bio monitoring survey of the CFR for each occasion (2283 records).

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| CFRName | Name of the CFR (40 CFRs) | Text |
| Occasion | Survey number (1-13) | Number |
| Province | Province where the CFR is located. | Text |
| Gender | Gender of the investigator who took part of the survey. | Text |
| InvestigatorName | Name of the investigator who took part of the survey. | Text |
| HP\_No | Phone number of the investigator. | Text |
| Org\_Position | Position of the investigator in the organisation which he’s part. | Text |
| Tasks | Description of investigator’s tasks during the survey. | Text |

Catch & Consumption\_Q1\_Basicinfo

This table provides for each of the 19 interviews general information on the households (contact information, ID number, location and name of the CFR which they are related) who has been interviewed. There were always ten households interviewed per CFR (40 CFR in total) during the project and isn’t always the same household who had been interviewed. (7600 records = 400 HH \* 19 interviews)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| EnumeratorName | Enumerator name | Text |
| HouseHoldID | Household identification number  *10 households per CFR; total of 400 households*  *\* Some household haven’t completed all the interviews. It is not always the same household who had completed the interviews.* | Number |
| InterviewName | Name of the Interviewee (respondent) | Text |
| Contact Number | Phone number of the interviewee | Text |
| DateInter | Date of the interview  *Household were interviewed every two months from November 2012 to November 2015 for a total of 19 interview:*  *Nov2012; Jan2013; Mar2013; May2013; Aug2013; Sep2013; Nov2013; Jan2014; Mar2014; May2014; Jul2014; Sep2014; Nov2014; Jan2015; Mar2015; May2015; Jul2015; Sep2015; Nov2015;* | MM/DD/YYYY |
| Village | Village where the household is located | Text |
| Commune | Commune where the household is located | Text |
| District | District where the household and the CFR are located | Text |
| Province | Province where the household and the CFR are located | Text |
| CFRName | Name of the CFR (40 CFRs) | Text |
| q1 | In the last 7 days, did your household members go for fishing?  *Yes = 1, No = 2* | Yes/No |

Catch & Consumption\_Q2

Q 2 - Where did you go for fishing in the last 7 days?

Respondents had to say where they went for fishing, catching OAA and collecting aquatic plants in the last 7 days. For each of those 3 groups, 10 locations were possible. (5173 records, not all HH had gone fishing)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household (HH) identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| Fish\_TrapPondInZOI | HH went fishing in trap pond in the zone of influence of the CFR | Yes/No |
| Fish\_TrapPondNotInZOI | HH went fishing in trap pond not in the zone of influence of the CFR | Yes/No |
| Fish\_FloodedRFinZOI | HH went fishing in flooded rice fields in the zone of influence of the CFR | Yes/No |
| Fish\_OtherFloodedRFnot | HH went fishing in other flooded rice field not connected to CFR | Yes/No |
| Fish\_CommunityPond | HH went fishing in community pond | Yes/No |
| Fish\_Stream\_canel | HH went fishing in stream, canals or rivers | Yes/No |
| Fish\_TonleSap | HH went fishing in Tonle Sap lake (open area) | Yes/No |
| Fish\_FloodedForest | HH went fishing in flooded Forest | Yes/No |
| Fish\_Reservoir | HH went fishing in reservoir and Lake | Yes/No |
| Fish\_Others | Other location where HH went fishing | Text |
| OAA\_TrapPondInZOI | HH went fishing for OAA in trap pond in the zone of influence of the CFR | Yes/No |
| OAA\_TrapPondNotInZOI | HH went fishing for OAA in trap pond not in the zone of influence of the CFR | Yes/No |
| OAA\_FloodedRFinZOI | HH went fishing for OAA in flooded rice fields in the zone of influence of the CFR | Yes/No |
| OAA\_OtherFloodedRFnot | HH went fishing for OAA in other flooded rice field not connected to CFR | Yes/No |
| OAA\_CommunityPond | HH went fishing for OAA in community pond | Yes/No |
| OAA\_Stream\_canel | HH went fishing for OAA in stream, canals or rivers | Yes/No |
| OAA\_TonleSap | HH went fishing for OAA in Tonle Sap lake (open area) | Yes/No |
| OAA\_FloodedForest | HH went fishing for OAA in flooded Forest | Yes/No |
| OAA\_Reservoir | HH went fishing for OAA in reservoir and Lake | Yes/No |
| OAA\_Others | Other location where HH went fishing for OAA | Text |
| AP\_TrapPondInZOI | HH went to gather aquatic plants in trap pond in the zone of influence of the CFR | Yes/No |
| AP\_TrapPondNotInZOI | HH went to gather aquatic plants in trap pond not in the zone of influence of the CFR | Yes/No |
| AP\_FloodedRFinZOI | HH went to gather aquatic plants in flooded rice fields in the zone of influence of the CFR | Yes/No |
| AP\_OtherFloodedRFnot | HH went to gather aquatic plants in other flooded rice field not connected to CFR | Yes/No |
| AP\_CommunityPond | HH went to gather aquatic plants in community pond | Yes/No |
| AP\_Stream\_canel | HH went to gather aquatic plants in stream, canals or rivers | Yes/No |
| AP\_TonleSap | HH went to gather aquatic plants in Tonle Sap lake (open area) | Yes/No |
| AP\_FloodedForest | HH went to gather aquatic plants in flooded Forest | Yes/No |
| AP\_Reservoir | HH went to gather aquatic plants in reservoir and Lake | Yes/No |
| AP\_Others | Other location where HH went to gather aquatic plants | Text |

Catch & Consumption\_Q3

Q 3 - How many days did your family members go to fish in last seven days?

Respondents had to say how many days each member of the household went fishing in the last seven days. (6917 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household (HH) identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| Family Member | Position within the household of the member of the family who went fish in the last 7 days:  *Husband*  *Spouse*  *Son > 5yrs (Nr.)*  *Daughter >5yrs (Nr.)*  *Other members (sex and age specified)* | Text |
| 1day; 2day; 3day; 4day; 5day; 6day; 7day | Only one of those variables is ticked according to the number of days the member of the family went fishing. | Yes/No |

Catch & Consumption\_Q4

Q 4 - In average how long did you spend fishing per outing?

This table provides the average time that household member spent for fishing during the 7 days before the survey. It is possible that a member have gone fishing during two separate periods (e.g. during the week he went fishing at night once and later that week he spent a full day on fishing). (6920 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household (HH) identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| Family Member | Member position within the household  *Husband*  *Spouse*  *Son > 5yrs (Nr.)*  *Daughter >5yrs (Nr.)*  *Other members (sex and age specified)* | Text |
| Nr\_member | Number of people when the family member description allow to have more than one member  \**e.g. 2 sons over 5 years old have went fishing* | Number |
| OnlyNight | In average HH member went fishing only at night (15.00-07.00) | Yes/No |
| OnlyDay | In average HH member went fishing only during the day (06.00-17.00) | Yes/No |
| FullOverNight | In average HH member went fishing during full over night and day time (24 hrs) | Yes/No |
| MoreOneDay | In average HH member went fishing during more than one day | Yes/No |

Catch & Consumption\_Q5

Q5: Estimate the catch of the Fish and OAA from different habitats.

Households had to estimate the total weight (kg) of the fish, OAA and aquatic plant caught during the week before the interview. They also had to estimate the percentage of fish, OAA and aquatic plant caught in the different habitat of question 2. (5187 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| Fish\_TrapPondInZOI  Fish\_TrapPondNotInZOI  Fish\_FloodedRFinZOI  Fish\_OtherFloodedRFnot  Fish\_CommunityPond  Fish\_Stream\_canel  Fish\_TonleSap  Fish\_FloodedForest  Fish\_Reservoir  Fish\_Others | Estimated percentage of fish caught by household in the different habitats during the 7 days before the interview. | % |
| Fish\_Explaination | Breakdown of the calculation of the catch explained by the respondent during the interview. | Text |
| Fish\_EstTotalCatch | Estimated total weight of fish caught during the 7 days before the interview. | kg |
| OAA\_TrapPondInZOI  OAA\_TrapPondNotInZOI  OAA\_FloodedRFinZOI  OAA\_OtherFloodedRFnot  OAA\_CommunityPond  OAA\_Stream\_canel  OAA\_TonleSap  OAA\_FloodedForest  OAA\_Reservoir  OAA\_Others | Estimated percentage of OAA caught by households in the different habitats during the 7 days before the interview. | % |
| OAA\_Explaination | Breakdown of the calculation of the catch explained by the respondent during the interview. | Text |
| OAA\_EstTotalCatch | Estimated total weight of OAA caught during the 7 days before the interview. | kg |
| AP\_TrapPondInZOI  AP\_TrapPondNotInZOI  AP\_FloodedRFinZOI  AP\_OtherFloodedRFnot  AP\_CommunityPond  AP\_Stream\_canel  AP\_TonleSap  AP\_FloodedForest  AP\_Reservoir  AP\_Others | Estimated percentage of aquatic plants gathered by household in the different habitats during the 7 days before the interview. | % |
| AP\_EstimateCatch | Estimated total weight of aquatic plants gathered during the 7 days before the interview. | kg |
| AP\_Explaination | Breakdown of the calculation of the catch explained by the respondent during the interview. | Text |

Catch & Consumption\_Q6

Q6: What fishing gears did you use in last seven days?

This table presents the number of the different fishing gear that households had been used during the 7 days before the survey to catch fish and OAA. This table also provide information on the characteristics of those fishing gear. However, for those fields, the data was not always entered properly, so the fishing gears details are not as useful as expected. (4719 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| Fish\_Hand | HH caught fish by hand | Yes/No |
| Fisn\_Morng | Number of Morng (gill net) used by HH to caught fish | Number |
| Fish\_Samnanh | Number of Samnanh (cast net) used by HH to caught fish | Number |
| Fish\_Tru | Number of Tru (horizontal cylinder trap for rice fields) used by HH to caught fish | Number |
| Fish\_Santouch | Number of Santouch Ronong (hook and line) used by HH to caught fish | Number |
| Fish\_Chhbok | Number of Chhbok (three pronged barbed spear) used by HH to caught fish | Number |
| Fish\_Bongkai | Number of Bongkai (single hook set pole ) used by HH to caught fish | Number of hooks |
| Fish\_Angruth | Number of Angruth (plunge basket) used by HH to caught fish | Number |
| Fish\_Chhnieng | Number of Chhnieng (bamboo basket) used by HH to caught fish | Number |
| Fish\_Lop | Number of Lop (horizontal cylinder trap with vertical entrance) used by HH to caught fish | Number |
| Fish\_Bammboo | Number of bamboo tube trap for eel used by HH to caught fish | Number |
| Fish\_Eel | Number of eel clamp used by HH to caught fish | Number |
| Fish\_Multi | Number of multi spiked eel rakes used by HH to caught fish | Number |
| Fish\_VerticalRice | Number of vertical rice field cylinder used by HH to caught fish | Number |
| Fish\_Other | Name or number of the other fishing gear used to catch fish | Text |
| OAA\_Hand | HH caught OAA by hand | Yes/No |
| OAA\_Morng | Number of Morng (gill net) used by HH to caught OAA | Number |
| OAA\_Samnanh | Number of Samnanh (cast net) used by HH to caught OAA | Number |
| OAA\_Tru | Number of Tru (horizontal cylinder trap for rice fields) used by HH to caught OAA | Number |
| OAA\_Santouch | Number of Santouch Ronong (hook and line) used by HH to caught OAA | Number |
| OAA\_Chhbok | Number of Chhbok (three pronged barbed spear) used by HH to caught OAA | Number |
| OAA\_Bongkai | Number of Bongkai (single hook set pole ) used by HH to caught OAA | Number of hooks |
| OAA\_Angruth | Number of Angruth (plunge basket) used by HH to caught OAA | Number |
| OAA\_Chhnieng | Number of Chhnieng (bamboo basket) used by HH to caught OAA | Number |
| OAA\_Lop | Number of Lop (horizontal cylinder trap with vertical entrance) used by HH to caught OAA | Number |
| OAA\_Bammboo | Number of bammboo tube trap for eel used by HH to caught OAA | Number |
| OAA\_Eel | Number of eel clamp used by HH to caught OAA | Number |
| OAA\_Multi | Number of multi spiked eel rakes used by HH to caught OAA | Number |
| OAA\_VerticalRice | Number of vertical rice field cylinder used by HH to caught OAA | Number |
| OAA\_Other | Name or number of the other fishing gear used to catch OAA | Text |
| Morng\_MeshSize | Mesh size (cm) and length (m) of the gill nets used by household | Text |
| Samnanh\_Nbr | Description of the Samnanh (cast net) used by household:  *3 numbers: number of samnanh used by the HH, mesh size (cm), Volume of the cast net (m3)*  *2 numbers: mesh size (cm), Volume of the cast net (m3)* | Text |
| Tru\_Volume | Volume of Tru (horizontal cylinder trap for rice fields) used by household | m3 |
| Santouch\_NbrHook | Number of hook on Santouch Ronong (hook and line) used by household | Number |
| Chhbok\_Nbr | Number of Chhbok (three pronged barbed spear) used by household | Number |
| Bongkai\_NbrHook | Number of hook on Bongkai (single hook set pole)used by household | Number |
| Angruth\_Volume | Volume of Angruth (plunge basket) used by household | m3 |
| Chhnieng\_Volume | Volume of Chhnieng (bamboo basket) used by household | m3 |
| Lop\_Volume | Volume of Lop (horizontal cylinder trap with vertical entrance) used by household | m3 |
| Bammboo\_Volume | Volume of bammboo tube trap for eel used by household | m3 |
| Eel\_Nbr | Number of eel clamp used by household | Number |
| Multi\_Nbr | Number of multi spiked eel rakes used by household | Number |
| VerticalRice\_Nbr | Number of vertical rice field cylinder used by household | Number |
| Other\_Nbr | Name or number of the other fishing gear used by household | Text |

Catch & Consumption\_Q7

Q7 - Fish species catches by HH in the last 7 days?

Household were asked how much of each fish species caught during the previous week were sold fresh, consumed fresh, process or lost. To facilitate the identification of the fish, the species were gathered in groups of similar species. (23,448 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| SpeciesGroup | Species group number. | Text |
| FishType | “Fish” | Text |
| IndicateFromQ5 | This field indicate the percentage of each species group caught by household during the previous week from the total weight catches (question 5). | % |
| Weight\_IndicateFromQ5 | Indicate the weight of the catches per species group. | kg |
| Percentage\_SoldFresh | Percentage of the catches which had been sold fresh. | % |
| Weight\_SoldFresh | Weight of the catches which had been sold fresh. | kg |
| Percentage\_ConsumedFresh | Percentage of the catches which had been consumed fresh. | % |
| Weight\_ConsumedFresh | Weight of the catches which had been consumed fresh. | kg |
| Percentage\_Process | Percentage of the catches which had been process | % |
| Weight\_Process | Weight of the catches which had been process | kg |
| Percentage\_Lost | Percentage of the catches which had been lost during the preparation for consumption or processing. | % |
| Weight\_Lost | Weight of the catches which had been lost during the preparation for consumption or processing. | kg |
| Percentage\_Other | Percentage of the catches which had been used differently. | % |
| Weight\_Other | Weight of the catches which had been used differently. | kg |

Catch & Consumption\_Q7sub

Q7 - Fish species catches by HH in the last 7 days?

The table Catch & Consumption\_Q7Sub identified which species specifically were catch per species group but no weight or percentage is given. (27,034 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| SpeciesGroup | Species group number. | Text |
| speciescode | Code associated with the species | Number |
| speciesName | Name of the species caught by the household. Sometime the identification stops at the genus. | Text |

Catch & Consumption\_Q8

Q8: Other aquatic animal species catches or aquatic plants collected in last 7 days?

Household were asked how much of other aquatic animal species (OAA) and aquatic plants caught/collect during the previous week were sold fresh, consumed fresh, process or lost while preparing them for consumption or process. To facilitate the identification of the fish, the species were gathered in groups of similar species. (7372 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| SpeciesGroup | Species group number. | Text |
| FishType | Indicate if the group species caught is a OAA or aquatic plants | Text |
| IndicateFromQ5 | This field indicate the percentage of each species group caught by household during the previous week from the total weight catches (question 5). | % |
| Weight\_IndicateFromQ5 | Indicate the weight of the catches per species group. | kg |
| Percentage\_SoldFresh | Percentage of the catches which had been sold fresh. | % |
| Weight\_SoldFresh | Weight of the catches which had been sold fresh. | kg |
| Percentage\_ConsumedFresh | Percentage of the catches which had been consumed fresh. | % |
| Weight\_ConsumedFresh | Weight of the catches which had been consumed fresh. | kg |
| Percentage\_Process | Percentage of the catches which had been process | % |
| Weight\_Process | Weight of the catches which had been process | kg |
| Percentage\_Lost | Percentage of the catches which had been lost during the preparation for consumption or processing. | % |
| Weight\_Lost | Weight of the catches which had been lost during the preparation for consumption or processing. | kg |
| Percentage\_Other | Percentage of the catches which had been used differently. | % |
| Weight\_Other | Weight of the catches which had been used differently. | kg |

Catch & Consumption\_Q8sub

Q8: Other aquatic animal species catches or aquatic plants collected in the last 7 days?

The table tblQ8sub identified which species specifically were catch per species group but no weight or percentage is given. (10,300 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| SpeciesGroup | Species group number. | Text |
| speciescode | Code associated with the species | Number |
| speciesName | Name of the species caught by the household. Sometime the identification stops at the genus. | Text |

Catch & Consumption\_Q9

Q9: How often did your family consumed fish (fresh or processed) for last seven days?

In this table, the frequency and abundance of fish, OAA and aquatic plants consumption for each household during the week before the survey is presented with the source and the type of fish or OAA as well. (21,670 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| No | Unique number which identified the provenance and the type of fish or OAA consumed by household within the previous week. | Number |
| Source\_Fish\_OAA | Source of the fish or the OAA consumed by household. | Text |
| Type\_Fish\_OAA | Type of fish or OAA consumed by household. | Text |
| Daily | HH have eaten daily this type of fish or OAA during the previous week. | Yes/No |
| Day5-6 | HH have eaten this type of fish or OAA 5 or 6 days during the previous week. | Yes/No |
| Day3-4 | HH have eaten this type of fish or OAA 3 or 4 days during the previous week. | Yes/No |
| Day1-2 | HH have eaten this type of fish or OAA 1 or2 days during the previous week. | Yes/No |
| TotalWeight | Total weight of fish or OAA **of the same source** consumed by HH during the previous week.  **\* The weight is not for the specific type of fish or OAA, but for all the different type of a same source.** | kg |

Catch & Consumption\_Q10-11

Q10: Did you or members of family consumed MN rich fish species?

Q11: Give the approximate weight of MN rich fish consumed from all possible sources.

If the household consumed mineral (MN) rich fish species (species code 24-35; 52-53; 57-58) during the week prior to the survey, households gave according to the provenance of the MN rich fish species the weight that they consumed. (7599 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| q10 | Did you or members of family consumme MN rich fish species? | Yes/No |
| WildCatch | Weight of MN rich fish species from their own wild catch consumed by household in the past week. | kg |
| Market | Weight of MN rich fish species from the market consumed by household in the past week. | kg |
| Preserved | Weight of already processed and preserved MN rich fish species (stock in the house) consumed by household in the past week. | kg |
| Neighbour | Weight of MN rich fish species received from a neighbour and consumed by household in the past week. | kg |
| Total | Total weight of MN rich fish species consumed by household in the past week. | kg |

Catch & Consumption\_Q12

Q12: For those MN rich species consumed, give approximate proportions for different types and consumption frequency.

There are three groups of mineral rich fish species (esomus, gouramis and trichopis) and household indicate the proportion from each group they consumed and how often a week. (3261 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| EsomusGp\_percentage | Percentage of the esomus group species (species code #24-35) consumed by the household during the previous week. | % |
| EsomusGp\_weight | Weight of the esomus group species (species code #24-35) consumed by the household during the previous week. | Kg |
| EsomusGp\_Daily  EsomusGp\_5-6days  EsomusGp\_3-4days  EsomusGp\_2days | Weekly frequency consumption of the esomus group species (species code #24-35) by HH during the previous week. | Yes/No |
| Gouramis\_percentage | Percentage of the gouramis group species (species code #52-53) consumed by the household during the previous week. | % |
| Gouramis\_weight | Weight of the gouramis group species (species code #52-53) consumed by the household during the previous week. | Kg |
| Gouramis\_Daily  Gouramis\_5-6days  Gouramis\_3-4days  Gouramis\_2days | Weekly frequency consumption of the gouramis group species (species code #52-53) by HH during the previous week. | Yes/No |
| Trichopis\_percentage | Percentage of the trichopis group species (species code #57-58) consumed by the household during the previous week. | % |
| Trichopis\_weight | Weight of the trichopis group species (species code #57-58) consumed by the household during the previous week. | Kg |
| Trichopis\_Daily  Trichopis\_5-6days  Trichopis\_3-4days  Trichopis\_2days | Weekly frequency consumption of the trichopis group species (species code #57-58) by HH during the previous week. | Yes/No |

Catch & Consumption\_Q13-16

Q13: Were some of the small MN rich species caught not consumed?

Q14: If some MN rich species that were caught but not consumed how were they used and what were the amounts in kg?

Q15: If you or your family consumed these fish in the past 7 days how were the fish prepared?

Q16: What were the main recipes for the MN rich fish?

This table identified what households did with the mineral (MN) rich fish species when they didn’t consume them. This table also records the way households prepared the mineral (MN) rich fish species before consumption. (5995 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| q13 | Were some of the small MN rich species caught not consumed? | Yes/No |
| q14\_FedToAnimal | Weight of the MN rich fish species caught and used to fed animal. | kg |
| q14\_process | Weight of the MN rich fish species caught and processed for future used. | kg |
| q14\_GiveAway | Weight of the MN rich fish species caught and had been gave away. | kg |
| q14\_Sell | Weight of the MN rich fish species caught and sold by household. | kg |
| q14\_Other | Weight of the MN rich fish species caught and used | kg |
| q14\_Total | Total weight of the MN rich fish species caught and not consumed by household. | kg |
| q15 | Description of the method used by HH to prepare MN rich fish species before consumption during the previous week. | Text |
| q15\_1 | Household had consumed MN rich fish species eviscerate. | Yes/No |
| q15\_2 | Household had consumed MN rich fish species eviscerate and head removed | Yes/No |
| q15\_3 | Household had consumed MN rich fish species entirely. | Yes/No |
| q15\_4 | Household had consumed MN rich fish species in other way. | Yes/No |
| q16\_Main  q16\_Secondary  q16\_Tertiary | Three main recipes with MN rich fish used by HH  *Fish soup: (1) Fish soup; (2) Fish soup with vegetable; (3) Toek Kreourng (fish and veg.); (4) KhorTrey/Pork; (5) Samlor Kokor; (6) Proher; (7) Machu Yuon; (8) Machu Sre;*  *Fried or roasted: (9) Trey Aing (fresh); (10) Trey Aing (salted); (11) Fried fish (fresh); (12) Fried fish (salted); (13) Fried fish with ginger; (14) MN fish Prahoc with vegetable; (15) Pa ork Chou/ Praiy (small fish); (16) smoke fish; (17) Ngoarm Korn trey; (18) Prahet kroeung; (19) Trey Korb/Khcheab;* | Number |

Catch & Consumption\_Q17-19

Q17: Do you have children less than 60 months (5 years old)?

Q18: How old are they (months)?

Q19: Feeding type?

This table identified the food consumption of the children less than 5 years within the household. (7600 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| q17 | There are children under 60 months in the household. | Yes/No |
| q18\_1  q18\_2  q18\_3  q18\_4 | Age of each child (in months) of the household under 5 years old. | Number |
| q19\_Breastfeeding\_1  q19\_Breastfeeding\_2  q19\_Breastfeeding\_3  q19\_Breastfeeding\_4 | Identified if child is breastfeeding.  1=Yess  2=No | Yes/No |
| q19\_Supple\_1  q19\_Supple\_2  q19\_Supple\_3  q19\_Supple\_4 | Number of supple (borbor) that child received during the last week. The type of supple given to each child is provided in the table *Catch & Consumption\_Q20*. | Number of meals/week |
| q19\_staple\_1  q19\_staple\_2  q19\_staple\_3  q19\_staple\_4 | Number of staple (rice meat veg) that child received during the last week. | Number of meals/week |

Catch & Consumption\_Q20

Q20: What type of supplementary food and how often it was given to each child of the household? (3703 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| SupplementaryFood | Type of supplementary food gave to the children:  *Borbor salt; Borbor meat; Borbor egg; Borbor fish; Borbor fish+egg; Borbor fish+egg +veg; Other (specify);* | Text |
| q20\_1  q20\_2  q20\_3  q20\_4 | Number of supplementary meals of each type given to each child of the household (same child identification number as in the table Catch & Consumption\_Q17-19). | Number of meals/week |

Catch & Consumption\_Q21

Q21: What is the approximate weight of fish given to children over past week incorporated in borbor porridge, staple and other meal?

This table provide the fish consumption for each child of the household and the source of those fish. (4580 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| Fish\_Given\_Children | Total weight of fish given to all the children of the household in the last week. | g |
| Proportion\_1\_percentage | Proportion of fish given to child # 1 of the household. | % |
| Proportion\_1\_weight | Quantity of fish given to child # 1 of the household. | g |
| Proportion\_2\_percentage | Proportion of fish given to child # 2 of the household. | % |
| Proportion\_2\_weight | Quantity of fish given to child # 2 of the household. | g |
| Proportion\_3\_percentage | Proportion of fish given to child # 3 of the household. | % |
| Proportion\_3\_weight | Quantity of fish given to child # 3 of the household. | g |
| Proportion\_4\_percentage | Proportion of fish given to child # 4 of the household. | % |
| Proportion\_4\_weight | Quantity of fish given to child # 4 of the household. | g |
| FishWild\_1\_percentage | Proportion of fish given to child # 1 that was from the own catch of the household. | % |
| FishWild\_1\_weight | Quantity of fish given to child # 1 that was from the own catch of the household. | g |
| FishWild\_2\_percentage | Proportion of fish given to child # 2 that was from the own catch of the household. | % |
| FishWild\_2\_weight | Quantity of fish given to child # 2 that was from the own catch of the household. | g |
| FishWild\_3\_percentage | Proportion of fish given to child # 3 that was from the own catch of the household. | % |
| FishWild\_3\_weight | Quantity of fish given to child # 3 that was from the own catch of the household. | g |
| FishWild\_4\_percentage | Proportion of fish given to child # 4 that was from the own catch of the household. | % |
| FishWild\_4\_weight | Quantity of fish given to child # 4 that was from the own catch of the household. | g |
| Market\_1\_percentage | Proportion of fish given to child # 1 that was coming from the market. | % |
| Market\_1\_weight | Quantity of fish given to child # 1 that was coming from the market. | g |
| Market\_2\_percentage | Proportion of fish given to child # 2 that was coming from the market. | % |
| Market\_2\_weight | Quantity of fish given to child # 2 that was coming from the market. | g |
| Market\_3\_percentage | Proportion of fish given to child # 3 that was coming from the market. | % |
| Market\_3\_weight | Quantity of fish given to child # 3 that was coming from the market. | g |
| Market\_4\_percentage | Proportion of fish given to child # 4 that was coming from the market. | % |
| Market\_4\_weight | Quantity of fish given to child # 4 that was coming from the market. | g |
| Aquaculture\_1\_percentage | Proportion of fish given to child # 1 that was coming from aquaculture. | % |
| Aquaculture\_1\_weight | Quantity of fish given to child # 1 that was coming from aquaculture. | g |
| Aquaculture\_2\_percentage | Proportion of fish given to child # 2 that was coming from aquaculture. | % |
| Aquaculture\_2\_weight | Quantity of fish given to child # 2 that was coming from aquaculture. | g |
| Aquaculture\_3\_percentage | Proportion of fish given to child # 3 that was coming from aquaculture. | % |
| Aquaculture\_3\_weight | Quantity of fish given to child # 3 that was coming from aquaculture. | g |
| Aquaculture\_4\_percentage | Proportion of fish given to child # 4 that was coming from aquaculture. | % |
| Aquaculture\_4\_weight | Quantity of fish given to child # 4 that was coming from aquaculture. | g |
| Process\_1\_percentage | Proportion of fish given to child # 1 that was already processed. | % |
| Process\_1\_weight | Quantity of fish given to child # 1 that was already processed. | g |
| Process\_2\_percentage | Proportion of fish given to child # 2 that was already processed. | % |
| Process\_2\_weight | Quantity of fish given to child # 2 that was already processed. | g |
| Process\_3\_percentage | Proportion of fish given to child # 3 that was already processed. | % |
| Process\_3\_weight | Quantity of fish given to child # 3 that was already processed. | g |
| Process\_4\_percentage | Proportion of fish given to child # 4 that was already processed. | % |
| Process\_4\_weight | Quantity of fish given to child # 4 that was already processed. | g |
| Neighbours\_1\_percentage | Proportion of fish given to child # 1 that was coming from the neighbours. | % |
| Neighbours\_1\_weight | Quantity of fish given to child # 1 that was coming from the neighbours. | g |
| Neighbours\_2\_percentage | Proportion of fish given to child # 2 that was coming from the neighbours. | % |
| Neighbours\_2\_weight | Quantity of fish given to child # 2 that was coming from the neighbours. | g |
| Neighbours\_3\_percentage | Proportion of fish given to child # 3 that was coming from the neighbours. | % |
| Neighbours\_3\_weight | Quantity of fish given to child # 3 that was coming from the neighbours. | g |
| Neighbours\_4\_percentage | Proportion of fish given to child # 4 that was coming from the neighbours. | % |
| Neighbours\_4\_weight | Quantity of fish given to child # 4 that was coming from the neighbours. | g |

Catch & Consumption\_Q22-23

Q22: Did your children eat any MN rich fish species in past 7 days

Q23: If Yes, what was the proportion of MN rich fish to all fish fed to children from total in Q21?

This table give the proportion of MN rich fish that all children had eaten in the previous 7 days of the survey. (4326 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| HouseHoldID | Household identification number | Number |
| DateInter | Date of the interview | MM/DD/YYYY |
| q22 | Did your children eat any MN rich fish species in past 7 days? | Yes/No |
| q23 | Proportion of MN rich fish to all fish fed to children from total in Q21. | % |

Livelihood\_Cover

Livelihood surveys were conducted among 636 households at the beginning of the project (2012) and 591 households at the end (2015). (1227 records)

*\* There was less households interviewed at the end of the project because some of them had moved away from the study area. The baseline survey has also been lost for 3 households so only the data from the 2015 survey is available*

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| a1 | The respondent agrees to be interviewed and understand that the survey is voluntary. All records = “Yes” | Text |
| a2 | Enumerator name | Text |
| a3 | Respondent name | Text |
| a4 | Contact number | Text |
| a5 | Day of interview | Number |
| a6 | Month of interview | Number |
| a7 | Year of interview | Number |
| a8 | Village where the household is located | Text |
| a9 | Commune where the household is located | Text |
| a10 | District where the household and the CFR are located | Text |
| a11 | Province where the household and the CFR are located | Text |
| a12 | CFR name | Text |
| a13 | CFR type | Text |

Livelivehood\_PersonalInfo\_Q2

This table give detailed information on each member of a household. (6847 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q1 | Identification number of the HH member | Number |
| q2 | Gender of the member | Text |
| q3 | Age of the member in completed years | Number |
| q4 | Relationship of this HH member with the HH head | Text |
| q5 | Number of years of education completed | Text |
| q6 | Primary occupation of this member | Text |
| q7 | Secondary occupation of this member (a) | Text |
| q8 | Secondary occupation of this member (b) | Text |

Livelihood\_PersonalInfo\_Q3-4

Household were asked which occupations among the household were the most important for income source and food security. (1227 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q3\_1 | The most important occupation for HH income source | Text |
| q3\_2 | The second most important occupation for HH income source | Text |
| q4\_1 | The most important occupation for HH food security | Text |
| q4\_2 | The second most important occupation for HH food security | Text |

Livelihood\_Assets\_Q5-12

Household housing specifications and assets. (1227 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q5 | Construction material of house wall | Text |
| q5\_7 | Material specification if in q5 =“ Others (specify)” | Text |
| q6 | Construction material of house roof | Text |
| q6\_8 | Material specification if in q5 =“ Others (specify)” | Text |
| q7 | Primary source of drinking water in the wet season | Text |
| q7\_6 | Specification if in q7 =“ Others (specify)” | Text |
| q8 | Primary source of drinking water in the dry season | Text |
| q8\_6 | Specification if in q8 =“ Others (specify)” | Text |
| q9\_1 | Main type of fuel used for cooking | Text |
| q9\_2 | Second type of fuel used for cooking | Text |
| q9\_3 | Third type of fuel used for cooking | Text |
| q10 | HH is connected or not to the main power (electric) line. | Yes/No |
| q11 | Type of toilet facility of the house | Text |
| q12\_1 | Number of bicycle owned by HH | Number |
| q12\_2 | Number of mobile phone owned by HH | Number |
| q12\_3 | Number of table phone owned by HH | Number |
| q12\_4 | Number of motorbike owned by HH | Number |
| q12\_5 | Number of car/truck/van owned by HH | Number |
| q12\_6 | Number of television owned by HH | Number |
| q12\_7 | Number of radio owned by HH | Number |
| q12\_8 | Number of cd player/dvd player/ktv owned by HH | Number |
| q12\_9 | Number of electric fan owned by HH | Number |
| q12\_10 | Number of gas stove owned by HH | Number |
| q12\_11 | Number of sewing machine owned by HH | Number |
| q12\_12 | Number of battery owned by HH | Number |

Livelihood\_Assets\_Q13

Number of different fishing assets owned by household. (25,767 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Fishing assets | Text |
| q13 | Number of an fishing asset owned by HH | Number |

Livelihood\_Assets\_Q14

Number of trap pond owned by household. (1227 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q14 | Number of trap pond owned by HH | Number |

Livelihood\_Assets\_Q15

Description of the trap pond owned by household. (516 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Trap pond identification number | Text |
| q15\_1 | Size of the trap pond | m2 |
| q15\_2 | Distance of the trap pond to the CFR | Km |

Livelihood\_Assets\_Q16

Number of different farming or home gardening asset owned by household. (14,724 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Farming or home gardening assets | Text |
| q16 | Number of a specific asset owned by HH | Number |

Livelihood\_Assets\_Q17

Number of different aquaculture asset owned by household. (3681 records)

\* Only 34 households in both 2012 and 2015 have aquaculture assets.

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Aquaculture assets | Text |
| q16 | Number of an asset owned by HH | Number |

Livelihood\_Farming\_Q18-23

Households land assets, land used and flooding intensity. (1227 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q18\_2 | Total area of paddy field owned by HH | Ha |
| q18\_3 | Area of the HH’s paddy field that gets inundated or flooded | Ha |
| q18\_4 | Duration of the inundation or flooding | Month |
| q19\_2 | Total area of paddy field connected to the CFR owned by HH | Ha |
| q19\_3 | Area of the HH’s paddy field connected to the CFR that gets inundated or flooded | Ha |
| q19\_4 | Duration of the inundation or flooding in the area of the HH’s paddy field connected to the CFR | Month |
| q20\_2 | Total area of chamkar land (land currently cultivated, but doesn’t include rice paddies) owned by HH | Ha |
| q20\_3 | Area of the HH’s chamkar land (land with plantations) that gets inundated or flooded | Ha |
| q20\_4 | Duration of the inundation or flooding in HH’s chamkar land (land with plantations) | Month |
| q21\_2 | Total area of fallow land (land owned by HH but not used) owned by HH | Ha |
| q21\_3 | Area of the HH’s fallow land (land owned by HH but not used) that gets inundated or flooded | Ha |
| q21\_4 | Duration of the inundation or flooding in HH’s fallow land (land owned by HH but not used) | Month |
| q22 | Total area of home garden land owned by HH | Ha |
| q23\_2 | Total area of agricultural land used and owned by the HH to grown crops, fruits and trees during the last 12 months (includes paddy field land and chamkar land and gardens) | Ha |
| q23\_3 | Total area of agricultural land rent to other (includes paddy field land and chamkar land and gardens) | Ha |
| q23\_4 | Total area of agricultural land rent from others and used by the HH to grown crops, fruits and trees during the last 12 months (includes paddy field land and chamkar land and gardens) | Ha |
| q23\_5 | Total area of agricultural land owned by the community and used by the HH to grown crops, fruits and trees during the last 12 months (includes paddy field land and chamkar land and gardens) | Ha |

Livelihood\_Farming\_Q24

This table provides the quantity of crop harvested, consumed, sold and bartered by household in the past 12 months. (2158 records)

\* When there is no value for an item it is because the crop has not been harvested yet or it has been damaged or lost.

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Type of crop cultivated in the last 12 months  \* It is possible that a household had harvested more than once a same type of crop within a year | Text |
| q24\_2 | Month of harvest | Number |
| q24\_3 | Quantity harvested | Kg |
| q24\_4 | Quantity consumed | Kg |
| q24\_5 | Quantity sold | Kg |
| q24\_6 | Quantity bartered | Kg |

Livelihood\_Livestock\_Q25

This table informed if the household or anyone in the household bought, sold or owned livestock in the past 12 months. (1227 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q25 | Has your household bought, sold or owned livestock in the past 12 months? | Yes/No |

Livelihood\_Livestock\_Q26

Amount of each type of livestock (include juvenile and adult livestock) currently owned, consumed, purchased or sold by household in the past 12 months. (8012)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Type of livestock | Text |
| q26\_2 | Number of livestock currently owned by HH | Number |
| q26\_3 | Number of livestock purchased in the past 12 month | Number |
| q26\_4 | Number of livestock delivery in the past 12 month | Number |
| q26\_5 | Number of livestock sold or bartered in the past 12 months | Number |

Livelihood\_Fishing\_Q27

This table informed if the household went fishing or take fish or OAA in the last 12 months. (1227 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q27 | In the last 12 months did your household go fishing or take fish? (do not include labour in commercial fisheries) | Yes/No |

Livelihood\_Fishing\_Q28

The year was divided in 4 fishing periods according to the water level and households have estimated the relative repartition of the fish catch and OAA for each habitat and time period. (9816 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Fishing period according to the water level:  *No water/lowest river flow (Feb-May);*  *Water level rising (Jun-Sept);*  *Peak Flood (Oct-Nov);*  *Water Receding (Dec-Jan).* | Text |
| GroupSp | Fish or OAA | Text |
| q28\_1 | Proportion of fish or OAA caught in the flooded rice fields (excluding trap ponds) | % |
| q28\_2 | Proportion of fish or OAA caught in canals and rivers | % |
| q28\_3 | Proportion of fish or OAA caught in the Tonle Sap lake (open area) | % |
| q28\_4 | Proportion of fish or OAA caught in flooded forests | % |
| q28\_5 | Proportion of fish or OAA caught in reservoir or lake | % |
| q28\_6 | Total weight of fish or OAA caught for a specific period of the year. | Kg |

Livelihood\_Fishing\_Q29

Estimate use of the fish and OAA caught in the different season by household from the total weight in Q28. (4908 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Fishing period according to the water level:  *No water/lowest river flow (Feb-May);*  *Water level rising (Jun-Sept);*  *Peak Flood (Oct-Nov);*  *Water Receding (Dec-Jan).* | Text |
| q29\_1\_1 | Percentage of fish sold fresh | % |
| q29\_1\_2 | Percentage of fish consumed fresh | % |
| q29\_1\_3 | Percentage of fish processed | % |
| q29\_2\_1 | Percentage of OAA sold fresh | % |
| q29\_2\_2 | Percentage of OAA consumed fresh | % |
| q29\_2\_3 | Percentage of OAA processed | % |

Livelihood\_Fishing\_Q30

Processed fish made by household from their own catch (does not include fish purchased and process). (12,270 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Type of processed fish | Text |
| q30\_2 | Percentage consumed by household | % |
| q30\_3 | Percentage barter or given | % |
| q30\_4 | Percentage sold | % |
| q30\_5 | Percentage stored more than 1 year | % |
| q30\_6 | Number of months in a year household have processed food in storage | Number |

Livelihood\_Fishing\_Q31

Productivity of the trap ponds own by household over the year. (368 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Number of the trap pond (Trap pond 1 to trap pond 4) | Text |
| q31\_1 | Productivity of the trap pond per year (kg of catch/trap pond/year) | Kg |
| q31\_2 | Month of peak catch in the trap pond (1-12) | Number |

Livelihood\_Fishing\_Q32

Main uses of the fisheries income by household. (1227 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q32\_1 | Main use | Text |
| q32\_2 | Secondary use | Text |
| q32\_3 | Tertiary use | Text |

## Livelihood\_Fishing\_Q33\_1

Proportion of the use of the high value fish and OAA caught by household. (2454 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | High value fish or high value OAA | Text |
| q33\_1 | Percentage sold | % |
| q33\_2 | Percentage consumed | % |
| q33\_3 | Percentage given or barter | % |

Livelihood\_Fishing\_Q33\_2

Average selling price according to some households for different high value fish and OAA. (1128 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q33\_3\_1 | Fish species name | Text |
| q33\_3\_2 | Average fish price (Riel/Kg) | Riel/kg |
| q33\_4\_1 | OAA name | Text |
| q33\_4\_2 | Average OAA price (Riel/Kg) | Riel/kg |

Livelihood\_Fishing\_Q34-35

Details on the aquaculture infrastructures own by household. (1227 records)

*\*Only a few households (32) have fish pond, none of them have cage for aquaculture and there is way more household in 2012 that own fish pond than in 2015.*

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q34 | Do you culture fish in ponds and/or cage (aquaculture)? | Yes/No |
| q35\_1 | Number of fish ponds own by household | Number |
| q35\_2 | Total area of the ponds own by household | m2 |
| q35\_3 | Number of fish cages/pens own by household | Number |
| q35\_4 | Total volume of cages own by household | m3 |

Livelihood\_Fishing\_Q36

Aquaculture productivity per cycle. (28 records)

*\* When the fields q36\_3, q36\_4, q36\_5 and q36\_6 are empty, it is because the household haven’t harvested yet their fish production*. It is the case for 3 households.

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Cage/pen or Pond | Text |
| q36\_2 | Number of production cycle per year | Number |
| q36\_3 | Quantity produced per cycle | Kg |
| q36\_4 | Quantity consumed by household per cycle | Kg |
| q36\_5 | Quantity bartered or given per cycle | Kg |
| q36\_6 | Quantity sold per cycle | Kg |

## Livelihood\_Fishing\_Q37

Fish species raised by household. (28 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q37\_1 | Main species raised by household | Text |
| q37\_2 | Secondary species raised by household | Text |
| q37\_3 | Tertiary species raised by household | Text |

## Livelihood\_Income\_Q38

Proportion of the contribution of different activities to the total income and consumption of the households. (12270 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Activities (e.g. Farming, livestock, fisheries, handicraft, etc.) | Text |
| q38\_1 | Percentage of the activity contributing to the household income | % |
| q38\_2 | Percentage of the activity contributing to the household consumption | % |

## Livelihood\_Income\_Q39

Proportion of the contribution of each of the different type of fisheries based on habitat to the total income and consumption of the households. (6135 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Fishing habitat | Text |
| q39\_1 | Percentage of fishing activities in a specific habitat contributing to the household income | % |
| q39\_2 | Percentage of fishing activities in a specific habitat contributing to the household consumption | % |

Livelihood\_Income\_Q40

Amount in riel spent by household for different expenditures during the previous year.(48,489 records)

*\* There were some errors when the data was collected (e.g. the amounts was entered in US dollar, the time frame don’t seems to be a year, etc.). The project staffs also think that quite often the interviewed people were over estimating their expenditures. For those reasons, it was impossible to correct the irregularity among the data.*

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Type of expense | Text |
| q40\_3 | Amount in Riel spent by household during the previous year | Riel |

Livelihood\_Shock\_q42-46

Amount in Riel spent or lost by household after a shock (unexpectedly large expenditure or income shortfalls) in the last 12 months and strategies used by household to face the shock. (902 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q42 | Type of shock that household had faced in the last 12 months.  (e.g. Crop lost, Job Loss, Illness, etc.) | Text |
| q43 | Month when the shock had occurred | Text |
| q44\_1 | Estimated total lost in Riel incurred by the shock | Riel |
| q44\_2 | Estimated total expenditure in Riel incurred by the shock | Riel |
| q45\_1 | Main strategy used by household to face up the shock | Text |
| q45\_2 | Secondary strategy used by household to face up the shock | Text |
| q45\_3 | Tertiary strategy used by household to face up the shock | Text |
| q46\_1 | Main type food that household has reduced the consumption to face up the shock | Text |
| q46\_2 | Secondary type food that household has reduced the consumption to face up the shock | Text |
| q46\_3 | Tertiary type food that household has reduced the consumption to face up the shock | Text |

## Livelihood\_Health\_Q47

Sickness frequency through the year of the respondent and the children of the household. (3904 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Type of illness | Text |
| q47\_3 | Number of time the respondent was sick in the last 12 months | Number |
| q47\_4 | Number of time respondent's children under 5 years old were sick in the last 12 months | Number |
| q47\_5 | Number of time respondent's children older than 5 years were sick in the last 12 months | Number |

Livelihood\_Health\_Q48

Effects of sickness on the fishing activities of the respondent and the children. (1227 records)

\*If the respondent or children were not sick (q47), the value for the fields q48\_1 or q48\_2 is “No”.

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q48\_1 | Do you fish less because of sickness | Yes/No |
| q48\_2 | Do your children fish less because of sickness | Yes/No |

Livelihood\_Food\_q41

Food level suffiency the households are facing trough the different period of the year. (7338 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Type of food (*Rice; Meat; Fish; OAA; Vegetable; Fruit; Other*) | Text |
| q41\_1 | Level of food sufficiency during the no water or lowest river flow period | Text |
| q41\_2 | Level of food sufficiency when the water level is rising | Text |
| q41\_3 | Level of food sufficiency during the peak flood | Text |
| q41\_4 | Level of food sufficiency when the water is receding | Text |

Livelihood\_Food\_Q49

Type of complementary foods given to children. (1227 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q49\_1 | Age when children start receiving complementary foods (months) | Number |
| q49\_2\_1  q49\_2\_2  q49\_2\_3  q49\_2\_4  q49\_2\_5  q49\_2\_6  q49\_2\_7 | Type of complementary foods children received classified by importance | Text |

Livelihood\_Food\_q50

Age when children start consuming fish and OAA. (1227 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q50\_1 | Age when children start eating fish (months) | Number |
| q50\_2 | Age when children start eating OAA (months) | Number |

Livelihood\_Food\_q51

Dietary diversity of women (number of food groups consumed) during the four different period of the year. (7362 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Food group *(Rice; Meat; Fish; OAA; Vegetable; Fruit)* | Text |
| q51\_1 | Women has consumed this food group during the no water or lowest river flow period | Yes/No |
| q51\_2 | Women has consumed this food group when the water level is rising | Yes/No |
| q51\_3 | Women has consumed this food group during peak flood | Yes/No |
| q51\_4 | Women has consumed this food group when the water is receding | Yes/No |

Livelihood\_Food\_q52a

Households were asked which foods according to them are good or bad for children’s health and well-being and why. (7897 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| Year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Type of food |  |
| q52\_a\_1 | Good food = Yes, not good = No | Yes/No |
| q52\_a\_2 | Description on why this type of food is good or not | Text |

Livelihood\_Food\_q52b

Households were asked which foods according to them are good or bad during pregnancy and lactation and why. (7871 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| Year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| item | Type of food | Text |
| q52\_a\_1 | Good food = Yes, not good = No | Yes/No |
| q52\_a\_2 | Description on why this type of food is good or not | Text |

Livelihood\_Food\_q53

Main constraint for household to not consumed foods they consider beneficial for children, pregnant and lactating women. (1827 records)

| **Name of the variable** | **Description** | **Unit** |
| --- | --- | --- |
| hhid | Household identification number | Number |
| Year | 2012 (baseline survey) or 2015 (end line survey) | Number |
| q53\_1 | Type of food | Text |
| q53\_2 | Reason why household don’t consumed foods they considered beneficial | Text |