

# Package ‘NSO1212’

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**Title** National Statistical Office of Mongolia's Open Data API Handler

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**Description** National Statistical Office of Mongolia (NSO) is the national statistical service and an organization of Mongolian government. NSO provides open access to official data via its API <<http://opendata.1212.mn/en/doc>>. The package NSO1212 has functions for accessing the API service. The functions are compatible with the API v2.0 and get data sets and its detailed informations from the API.

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**URL** <https://github.com/galaamn/NSO1212>

**BugReports** <https://github.com/galaamn/NSO1212/issues>

**Depends** R (>= 3.5.0)

**Imports** httr, jsonlite

**License** GPL-3

**Encoding** UTF-8

**ByteCompile** true

**NeedsCompilation** no

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all\_tables

*Brief Information about All Database Tables***Description**

Brief information about all available database tables on the open-data API which is supported by National Statistical Office of Mongolia (NSO)

**Usage**

```
all_tables(try = FALSE, timeout = Inf, na.rm = FALSE)
```

**Arguments**

try	logical: Should the body of the function be wrapped by the function <code>try</code> ? See details.
timeout	positive numeric or <code>Inf</code> : The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.
na.rm	logical: If TRUE, it removes empty rows in a data frame which is result of this function.

**Details**

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if `try` is TRUE, you have to write code with error handling as shown in the example.

**Value**

A data frame which has brief information of all available database tables if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The data frame has following structure:

**rownum** Row number  
**list\_id** Sector number  
**tbl\_id** Table identification number  
**tbl\_nm** Table name in Mongolian  
**tbl\_eng\_nm** Table name in English  
**unit\_id** Unit code  
**cd\_nm** Unit name in Mongolian  
**cd\_eng\_nm** Unit name in English  
**strt\_prd** Start date  
**end\_prd** Finish date  
**prd\_se** Time frequency  
**lst\_chn\_de** Last update date

## References

<http://opendata.1212.mn/en/doc/Api/GET-api-Items>

## See Also

[get\\_table](#), [get\\_table\\_info](#), [get\\_sector\\_info](#)

## Examples

```
all.tables <- all_tables(try = TRUE, timeout = 4)
if (!inherits(all.tables, "try-error")) {
  str(all.tables)
}
```

---

get_sector_info	<i>Detailed Information about All Main Sectors</i>
-----------------	--

---

## Description

Detailed information about all main sectors, which are major classification of data, on the open-data API which is supported by National Statistical Office of Mongolia (NSO)

## Usage

```
get_sector_info(try = FALSE, timeout = Inf)
```

## Arguments

try	logical: Should the body of the function be wrapped by the function <code>try</code> ? See details.
timeout	positive numeric or <code>Inf</code> : The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.

## Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if `try` is `TRUE`, you have to write code with error handling as shown in the example.

## Value

A data frame which has sector information if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The data frame has following structure:

**rownum** Row number  
**list\_id** Sector identification number  
**up\_list\_id** Sub sector identification number  
**list\_nm** Sector name in Mongolian  
**list\_eng\_nm** Sector name in English  
**isExist** Whether or exist sub-sectors

**References**

<http://opendata.1212.mn/en/doc/Api/GET-api-Sector>

**See Also**

[all\\_tables](#), [get\\_table](#), [get\\_table\\_info](#), [get\\_subsector\\_info](#)

**Examples**

```
sector_info <- get_sector_info(try = TRUE, timeout = 4)
if (!inherits(sector_info, "try-error")) {
  print(sector_info)
}
```

---

get\_subsector\_info      *Detailed Information about a Sub-Sector*

---

**Description**

Detailed information about a sub-sector, which is minor classification of data, on the open-data API which is supported by National Statistical Office of Mongolia

**Usage**

```
get_subsector_info(subid, try = FALSE, timeout = Inf)
```

**Arguments**

subid	character string, Sub-sector identification number
try	logical: Should the body of the function be wrapped by the function <code>try</code> ? See details.
timeout	positive numeric or Inf: The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.

**Details**

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if `try` is TRUE, you have to write code with error handling as shown in the example.

**Value**

A data frame which has sub-sector information if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The data frame has following structure:

**rownum** Row number

**list\_id** Sector identification number

**up\_list\_id** Sub sector identification number  
**list\_nm** Sector name in Mongolian  
**list\_eng\_nm** Sector name in English  
**isExist** Whether or exist sub-sectors

## References

[http://opendata.1212.mn/en/doc/Api/GET-api-Sector\\_subid](http://opendata.1212.mn/en/doc/Api/GET-api-Sector_subid)

## See Also

[all\\_tables](#), [get\\_table](#), [get\\_table\\_info](#), [get\\_sector\\_info](#)

## Examples

```
subsector_info <- get_subsector_info("976_L05", try = TRUE, timeout = 4)
if (!inherits(subsector_info, "try-error")) {
  print(subsector_info)
}
```

---

get\_table

*Download a Database Table*

---

## Description

It downloads a database table, which contains statistical data, from the open-data API which is supported by National Statistical Office of Mongolia (NSO).

## Usage

```
get_table(
  tbl_id,
  PERIOD = NULL,
  CODE = NULL,
  CODE1 = NULL,
  CODE2 = NULL,
  try = FALSE,
  timeout = Inf
)

make_period(start, end = NULL, period = "Y")
```

**Arguments**

tbl_id	character string, Table identification number
PERIOD	character vector, Time
CODE, CODE1, CODE2	character vector, Classification code (age, gender etc)
try	logical: Should the main body of the function be wrapped by the function <code>try</code> ? See details.
timeout	positive numeric or Inf: The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.
start, end	Starting and stopping moments of period which has following formats: "YYYY", "YYYYMM", "YYYYMMDD", "YYYYQQ". Notations YYYY, MM, DD and QQ, respectively, indicate year, month, day and quarter of a date. These are written as a number has a leading zero, if necessary.
period	One of single characters "Y" (default), "M", "D" and "Q" which represent periods yearly, monthly, daily and quarterly respectively. There is one more value "F" which is supported by the API. However it can not be used for such function due to there is not a fixed rule for this type of periods.

**Details**

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if `try` is TRUE, you have to write code with error handling as shown in the example.

**Value**

A data frame if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The data frame has following structure:

**TBL\_ID** Row number

**Period** Time

**CODE** Classification code

**SCR\_MN** Classification name in Mongolian

**SCR\_ENG** Classification name in English

**CODE1** Classification code

**SCR\_MN1** Classification name in Mongolian

**SCR\_ENG1** Classification name in English

**CODE2** Classification code

**SCR\_MN2** Classification name in Mongolian

**SCR\_ENG2** Classification name in English

**DTVAL\_CO** Datum

a character vector which contains an API compatible period.

## Functions

- `make_period`: It is used to prepare values for the argument `PERIOD` of the function `get_table`.

## References

<http://opendata.1212.mn/en/doc/Api/POST-api-Data>

## See Also

[all\\_tables](#), [get\\_table\\_info](#), [get\\_sector\\_info](#)

## Examples

```
nso.data <- get_table(  
  tbl_id = "DT_NSO_2400_015V2",  
  PERIOD = make_period(start = "201711", end = "202103", period = "M"),  
  CODE = c("10", "11"),  
  CODE1 = "11",  
  try = TRUE, # to prevent a server error  
  timeout = 4  
)  
if (!inherits(nso.data, "try-error")) {  
  print(nso.data)  
}
```

---

get\_table\_info

*Detailed Information about a Database Table and Its Classification*

---

## Description

Detailed information about a database table and its classification on the open-data API which is supported by National Statistical Office of Mongolia (NSO)

## Usage

```
get_table_info(tbl_id, simplify = FALSE, try = FALSE, timeout = Inf)
```

## Arguments

<code>tbl_id</code>	character string, Table identification number
<code>simplify</code>	logical: Should the result be simplified to a vector and a data frame?
<code>try</code>	logical: Should the body of the function be wrapped by the function <code>try</code> ? See details.
<code>timeout</code>	positive numeric or <code>Inf</code> : The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.

## Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if try is TRUE, you have to write code with error handling as shown in the example.

## Value

A list which contains information about database table and its classification if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The list has following structure:

**tbl\_id** Table identification number  
**unit\_id** Unit identification number  
**unit\_nm** Unit name in Mongolia  
**unit\_eng\_nm** Unit name in English  
**obj** Table classification:  
     **obj\_var\_id** Variable identification  
     **var\_ord\_sn** Variable identification number  
     **field** Field name  
     **scr\_mn** Variable name in Mongolian  
     **scr\_eng** Variable identification  
     **itm** Variable classification and code:  
         **itm\_id** Classification number  
         **up\_itm\_id** Sub-classification  
         **scr\_mn** Classification name in Mongolian  
         **scr\_eng** Classification name in English

if simplify is TRUE, an user-friendly result is returned.

## References

<http://opendata.1212.mn/en/doc/Api/GET-api-Itms-id>

## See Also

[all\\_tables](#), [get\\_table](#), [get\\_sector\\_info](#)

## Examples

```
# tree shaped result
table_info <- get_table_info("DT_NSO_2400_015V2", try = TRUE,, timeout = 4)
if (!inherits(table_info, "try-error")) {
  str(table_info)
}
# tabular result
table_info_simplified <- get_table_info(
  "DT_NSO_2400_015V2", simplify = TRUE, try = TRUE, timeout = 4)
if (!inherits(table_info_simplified, "try-error")) {
  str(table_info_simplified)
}
```



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NSO1212

*National Statistical Office of Mongolia's Open Data API Handler*

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**Description**

National Statistical Office of Mongolia (NSO) is the national statistical service and an organization of Mongolian government. NSO provides open access and official data via its open-data API. The package NSO1212 has functions for accessing the API service. The functions are compatible with the API v2.0 and get data-sets or its detailed information from the API.

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**References**

<http://opendata.1212.mn/en/doc>

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