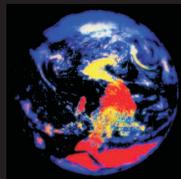
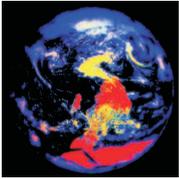


**DATA SERVICE & INFORMATION GMBH**  
GESELLSCHAFT FÜR WIRTSCHAFTSANALYSE UND -PROGNOSE



**DSI's Global  
Environmental  
Database  
2020**



## DSI's Global Environmental Database 2020

DSI's Global Environmental Database edition 2020 has been updated and presents 1200+ up-to-date statistical time series indicators across up to 280 countries and regions worldwide.

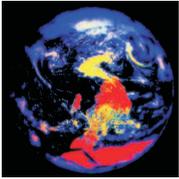
DSI's Global Environmental Database brings together hard-to-find statistics on the environmental issues affecting our climate, our resources, our social communities:

- detailed data on energy consumption and emissions from fuel combustion,
- water resources, land use, agriculture, farming, forestry and fishery,
- human resources (population, education, skills),
- social conditions (health, sanitation, poverty, natural disasters),
- economic core indicators (GDP, production, trade, exchange rates).

DSI's Global Environmental Database is an indispensable source to

- identify trends across different countries,
- compare one country's environmental situation and policies with another,
- find out which countries are making efforts to protect their environment.

CD-RoM archive available: DSI's Global Environmental Database (GED) on CD-RoM comes along with a powerful retrieval engine and includes online access to the corresponding GED internet services without surcharge.



# DSI's Global Environmental Database 2020

## Harmonised Data

Updated on a regular basis, DSI's Global Environmental Database covers the years from 1980 onwards (if available). Most time series have been harmonised and finally merged into a single database for easy access and more comfortable research.

## Sources

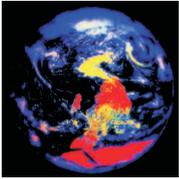
The primary statistics have been researched from official information sources worldwide, especially international organisations, e.g.:

the World Health organisation, the United Nations and its specialised agencies, Eurostat and the European Environment Agency, the Energy Information Administration, International Monetary Fund, Centre for Research on the Epidemiology of Disasters, Intergovernmental Panel on Climate Change, International Union for the Conservation of Nature and Natural Resources, or the World Database on Protected Areas - WDPA Consortium.

## Data Access

IP controlled internet access (or variable access by user ID/password) allows data retrieval by keyword search, tree-view or via hierarchical breakdown supported by some powerful online tools for ad hoc analysis:

- calculations
- statistical operations (mean, standard deviation, moving average, growth rate, lag)
- forecasts
- reports
- graphics/tables
- data downloading for external analysis, e.g.
  - to identify trends between countries and regions or
  - to create individual environmental performance indices and rankings



# DSI's Global Environmental Database 2020

## Data Coverage

DSI's Global Environmental Database allows to enhance broad national, regional and global environmental analyses.

### I. Elementary Resources

- atmosphere: air quality, climate
- water: quality/pollution, reserves
- terrestrial/soil: land use, fertilization, salinization

### II. Natural Resources

- food
- agriculture
- farming
- fishery
- forestry
- biodiversity

### III. Mineral Resources

- coal
- oil
- natural gas
- uranium

### IV. Energy Consumption

- total
- by sector
  - coal
  - natural gas
  - oil
  - charcoal
  - biomass, wood, waste

### V. Human Resources

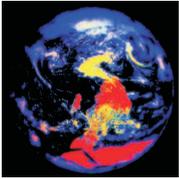
- population
- education
- skills

### VI. Social Conditions

- health
- sanitation
- poverty
- disasters (natural)

### VII. Economic Core Indicators

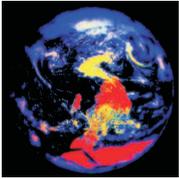
- GDP
- production
- trade
- exchange rates



# DSI's Global Environmental Database 2020

## Country Coverage

Afghanistan, Albania, Algeria, American Samoa, Andorra, Angola, Anguilla, Antarctic, Antigua and Barbuda, Argentina, Armenia, Aruba, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Baker Island, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Bouvet Island, Brazil, British Indian ocean Territory, British Virgin Islands, Brunei Darussalam, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Cayman Islands, Central African Republic, Chad, Chile, China, Christmas Island, Cocos (Keeling) Islands, Colombia, Comoros, Congo, Cook Islands, Costa Rica, Cote d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Democratic People's Republic of Korea, Democratic Republic of the Congo, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Falkland Islands (Malvinas), Faroe Islands, Fiji, Finland, France, French Guiana, French Polynesia, French Southern and Antarctic Territories, Gabon, Gambia, Georgia, Germany, Ghana, Gibraltar, Glorioso Islands, Greece, Greenland, Grenada, Guadeloupe, Guam, Guatemala, Guernsey, Guinea, Guinea-Bissau, Guyana, Haiti, Heard Island & McDonald Islands, Holy See, Honduras, Howland Island, Hungary, Iceland, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Isle of Man, Israel, Italy, Jamaica, Japan, Jarvis Island, Jersey, Johnston Atoll, Jordan, Juan De Nova Island, Kazakhstan, Kenya, Kiribati, Kosovo, Kuwait, Kyrgyzstan, Lao People's Democratic Republic, Latvia, Lebanon, Lesotho, Liberia, Libyan Arab Jamahiriya , Liechtenstein , Lithuania, Luxembourg, Macau, China, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Martinique, Mauritania, Mauritius, Mayotte, Mexico, Micronesia (Federated States of), Midway Islands, Moldova, Republic of, Monaco, Mongolia, Montenegro, Montserrat, Morocco, Mozambique, Myanmar, Namibia, Nauru, Nepal, Netherlands, Netherlands Antilles, New Caledonia, New Zealand, Nicaragua, Niger, Nigeria, Niue, Norfolk Island, Northern Mariana Islands, Norway, occupied Palestinian Territory, oman, Pakistan, Palau, Panama, Papua New Guinea, Paracel Islands, Paraguay, Peru, Philippines, Pitcairn Island, Poland, Portugal, Puerto Rico, Qatar, Republic of Korea, Reunion, Romania, Russian Federation, Rwanda, Saint Helena, Saint Kitts and Nevis, Saint Lucia, Saint Pierre and Miquelon, Saint Vincent and the Grenadines, Samoa, San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, South Georgia and the South Sandwich Islands, Spain, Spratly Islands, Sri Lanka, Sudan, Suriname, Svalbard and Jan Mayen Islands, Swaziland, Sweden, Switzerland, Syrian Arab Republic, Taiwan, Tajikistan, Thailand, The former Yugoslav Republic of Macedonia, Togo, Tokelau, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands, Tuvalu, Uganda, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, United States of America, United States Virgin Islands, Uruguay, Uzbekistan, Vanuatu, Venezuela, Viet Nam, Wake Island, Wallis and Futuna, Western Sahara, Yemen, Serbia, Zambia, Zimbabwe.



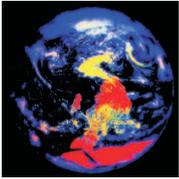
# DSI's Global Environmental Database 2020

## **Regions Coverage**

World

Africa, Asia + Pacific, Europe, Latin America + Caribbean, North America, Polar, West Asia.

Central Africa, Eastern Africa, Northern Africa, Southern Africa, Western Africa, Western Indian ocean, Australia + New Zealand, Central Asia, NW Pacific + East Asia, South Asia, South East Asia, South Pacific, Central Europe, Eastern Europe, Western Europe, Caribbean, Meso America, South America, North America, Antarctic, Arctic, Arabian Peninsula, Mashriq.



# DSI's Global Environmental Database 2020

## List of indicators

### I. Elementary Resources

#### - atmosphere

climate: average temperature

climate: average Co2 concentration ("Keeling Curve")

quality: emissions of ozone-depleting substances

quality: PM 10

quality: emissions from fuel combustion

(->Methodologies for calculation of energy consumption by sector)

#### coal

carbon dioxide, Co2

methan, CH4

nitrous oxide, N2o

nitrogen oxide, NoX

carbon monoxide, Co

non-methane volatile organic compounds, NMVoC

sulphur dioxide, So2

#### natural gas

carbon dioxide, Co2

methan, CH4

nitrous oxide, N2o

nitrogen oxide, NoX

carbon monoxide, Co

non-methane volatile organic compounds, NMVoC

sulphur dioxide, So2

#### oil

carbon dioxide, Co2

methan, CH4

nitrous oxide, N2o

nitrogen oxide, NoX

carbon monoxide, Co

non-methane volatile organic compounds, NMVoC

sulphur dioxide, So2

#### charcoal

carbon dioxide, Co2

methan, CH4

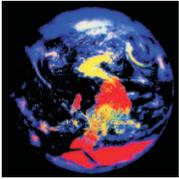
nitrous oxide, N2o

nitrogen oxide, NoX

carbon monoxide, Co

non-methane volatile organic compounds, NMVoC

sulphur dioxide, So2



## DSI's Global Environmental Database 2020

biomass/ wood/ waste  
carbon dioxide, Co2  
methan, CH4  
nitrous oxide, N2o  
nitrogen oxide, NoX  
carbon monoxide, Co  
non-methane volatile organic compounds, NMVoC  
sulphur dioxide, So2

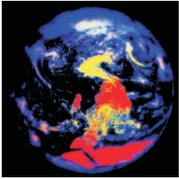
quality: emissions from fossil fuel combustion by sectors

total emissions from energy sector  
carbon dioxide, Co2  
methan, CH4  
nitrous oxide, N2o  
nitrogen oxide, NoX  
carbon monoxide, Co  
non-methane volatile organic compounds, NMVoC  
sulphur dioxide, So2

total emissions from manufacturing sector  
carbon dioxide, Co2  
methan, CH4  
nitrous oxide, N2o  
nitrogen oxide, NoX  
carbon monoxide, Co  
non-methane volatile organic compounds, NMVoC  
sulphur dioxide, So2

total emissions from transport sector  
carbon dioxide, Co2  
methan, CH4  
nitrous oxide, N2o  
nitrogen oxide, NoX  
carbon monoxide, Co  
non-methane volatile organic compounds, NMVoC  
sulphur dioxide, So2

total emissions from other sectors  
carbon dioxide, Co2  
methan, CH4  
nitrous oxide, N2o  
nitrogen oxide, NoX  
carbon monoxide, Co  
non-methane volatile organic compounds, NMVoC  
sulphur dioxide, So2



## DSI's Global Environmental Database 2020

total emissions from fuel

carbon dioxide, Co2

methan, CH4

nitrous oxide, N2o

nitrogen oxide, NoX

carbon monoxide, Co

non-methane volatile organic compounds, NMVoC

sulphur dioxide, So2

quality: emissions from total fuel combustion by sectors

total emissions from energy sector

carbon dioxide, Co2

methan, CH4

nitrous oxide, N2o

nitrogen oxide, NoX

carbon monoxide, Co

non-methane volatile organic compounds, NMVoC

sulphur dioxide, So2

total emissions from manufacturing sector

carbon dioxide, Co2

methan, CH4

nitrous oxide, N2o

nitrogen oxide, NoX

carbon monoxide, Co

non-methane volatile organic compounds, NMVoC

sulphur dioxide, So2

total emissions from transport sector

carbon dioxide, Co2

methan, CH4

nitrous oxide, N2o

nitrogen oxide, NoX

carbon monoxide, Co

non-methane volatile organic compounds, NMVoC

sulphur dioxide, So2

total emissions from other sectors

carbon dioxide, Co2

methan, CH4

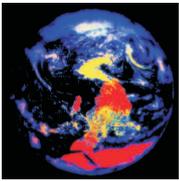
nitrous oxide, N2o

nitrogen oxide, NoX

carbon monoxide, Co

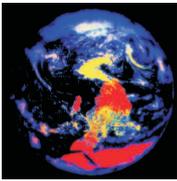
non-methane volatile organic compounds, NMVoC

sulphur dioxide, So2



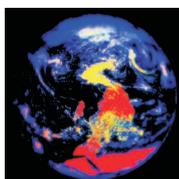
# DSI's Global Environmental Database 2020

- total emissions from fuel
  - carbon dioxide, Co2
  - methan, CH4
  - nitrous oxide, N2o
  - nitrogen oxide, NoX
  - carbon monoxide, Co
  - non-methane volatile organic compounds, NMVoC
  - sulphur dioxide, So2
- water
  - fresh water
    - resource
      - precipitation
      - exploitable
      - fossil
        - abstraction of fossil groundwater
        - expected time that fossil groundwater will last
    - harvesting
    - renewable
      - water resources: total renewable per capita (actual)
        - groundwater
        - surface water
        - freshwater
        - total internal renewable
        - total internal per capita
        - total external renewable (actual)
        - total renewable (actual)
  - withdrawal
    - by sector
      - agricultural water
      - domestic water
      - industrial water
      - total water (summed by sector)
      - agricultural water withdrawal as part of total
      - domestic water withdrawal as part of total
      - industrial water withdrawal as part of total
      - surface water
      - groundwater
      - freshwater
    - water stress
  - irrigation/ drainage
    - drained area
      - total
      - area equipped for irrigation
      - non-irrigated area



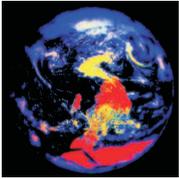
## DSI's Global Environmental Database 2020

- area equipped for irrigation
  - total
  - actual irrigated
  - irrigation potential
  - full control - surface
  - full control - sprinkler
  - full control - localized
  - full control - total
  - lowlands
  - power irrigated area
  - power irrigated area as percentage
  - spate irrigation
  - part of area actually irrigated
  - percentage of water managed area
  - percentage of irrigation potential
  - percentage of cultivated land
    - by groundwater
    - by surface water
    - by other sources
  - flood recession cropping area
  - cultivated wetlands and inland valley bottoms
  - agricultural water managed area
  - grain production irrigated
- desalinated
- waste water
  - produced
  - organic pollution
    - total industry
    - chemical industry
    - clay and glass industry
    - food industry
    - metal industry
    - paper & pulp industry
    - textile industry
    - wood industry
    - other industry
  - treated



## DSI's Global Environmental Database 2020

amides  
anticoagulants  
benzimidazoles  
benzimidazoles-seedTrF  
bipiridils  
botanic prod&biologSdTrF  
botanic. produc & biologic.  
carbamates herbicides  
carbamates insecticides  
carbamates-insect-SdTr  
chlorinated hydrocarbons  
cyanide generators  
diazines, morpholines  
dinitroanilines  
disinfectants  
disinfectants + (total)  
dithiocarbamates  
dithiocarbamates-seedTrF  
fungicides & bactericides + (total)  
herbicides + (total)  
hypercalcaemics  
inorganics  
insecticides + (total)  
mineral oils  
mineral oils + (total)  
narcotics  
organo-phospates-SdTr In  
organo-phosphates  
other fungicides  
other herbicides  
other insecticides  
other pesticides nes  
other pesticides nes + (total)  
other rodenticides  
others-seedtreat ins  
others-seedtreatfung  
phenoxy hormone products  
plant growth regulators  
plant growth regulators + (total)  
pyrethroids  
pyrethroids-seedTr Ins  
rodenticides + (total)  
seed treatm fungicides + (total)



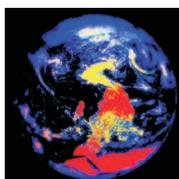
# DSI's Global Environmental Database 2020

## - terrestrial/soil land use

- total area
- parks and protected areas - terrestrial and marine
- agricultural area
- agricultural area certified organic
- agricultural area in conversion to organic
- agricultural area irrigated
- agricultural area organic, total
- arable land
- arable land and permanent crops
- arable land area certified organic
- arable land area in conversion to organic
- arable land organic, total
- country area
- fallow land
- forest area
- inland water
- land area
- other land
- perm. meadows & pastures - cultivated
- perm. meadows & pastures - nat. grown
- permanent crops
- permanent crops area certified organic
- permanent crops area in conversion to organic
- permanent crops organic, total
- permanent meadows and pastures
- permanent meadows and pastures area certified organic
- permanent meadows and pastures area in conversion to organic
- permanent meadows and pastures organic, total
- temporary crops
- temporary meadows and pastures
- total area equipped for irrigation

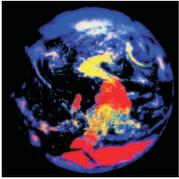
## fertilization

- total - consumption
- total - production
- ammonia, anhydrous - consumption
- ammonia, anhydrous - production
- ammonium nitrate - consumption
- ammonium nitrate - production
- ammonium sulphate - consumption
- ammonium sulphate - production
- calcium ammonium nitrate - consumption



## DSI's Global Environmental Database 2020

calcium ammonium nitrate - production  
diammonium phosphate - consumption  
diammonium phosphate - production  
monoammonium phosphate - consumption  
monoammonium phosphate - production  
nitrogen fertilizers - consumption  
nitrogen fertilizers - production  
NPK blends - consumption  
NPK complex - consumption  
NPK complex - production  
NPK complex <=10kg - consumption  
NPK complex <=10kg - production  
NPK complex >10kg - consumption  
NPK complex >10kg - production  
other nitrogen & phosphates compounds - consumption  
other nitrogen & phosphates compounds - production  
other nitrogen & phosphorus compounds - consumption  
other nitrogen & phosphorus compounds - production  
other NP compounds - consumption  
other NP compounds - production  
phosphate fertilizers - consumption  
phosphate fertilizers - production  
phosphate rock - consumption  
phosphate rock - production  
PK compounds - consumption  
PK compounds - production  
potash fertilizers - consumption  
potash fertilizers - production  
potassium chloride (muriate of potash);consumption  
potassium chloride (muriate of potash);production  
potassium nitrate - consumption  
potassium nitrate - production  
potassium sulphate - consumption  
potassium sulphate - production  
superphosphate - consumption  
superphosphate - production  
superphosphate above 35%;consumption  
superphosphate above 35%;production  
superphosphate other - consumption  
superphosphate other - production  
urea - consumption  
urea - production  
urea and ammonium nitrate solutions - consumption  
urea and ammonium nitrate solutions - production  
pesticides

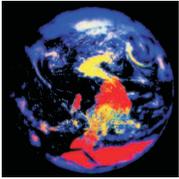


# DSI's Global Environmental Database 2020

- seed treatment insecticides + (total)
- sulfonyl ureas
- triazines
- triazoles diazoles-SdTrF
- triazoles, diazoles
- uracil
- urea derivates
- salinisation

## II. Natural Resources

- food production
- food supply
  - livestock, fish ...
    - animal fats
    - animal products
    - quatic animals, others
    - aquatic plants
    - aquatic products, other
    - bovine meat



## DSI's Global Environmental Database 2020

- treenuts
- vegetable oils
- vegetables
- vegetables, other
- vegetal products
- wheat and products
- wine
- yams

### - agriculture

#### production indices

##### gross per capita production index number

- meat indigenous, total

- milk, total

- oilcrops primary

- roots and tubers, total

- sugar, raw

- vegetables and fruit primary

- agriculture

- cereals, total

- crops

- food

- livestock

- non food

##### gross production index number

- meat indigenous, total

- milk, total

- oilcrops primary

- roots and tubers, total

- sugar, raw

- vegetables and fruit primary

- agriculture

- cereals, total

- crops

- food

- livestock

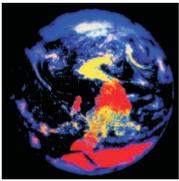
- non food

##### net per capita production index number

- meat indigenous, total

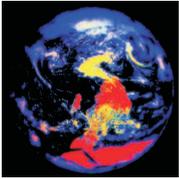
- milk, total

- oilcrops primary



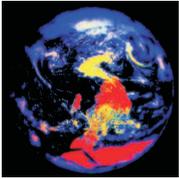
## DSI's Global Environmental Database 2020

- roots and tubers, total
- sugar, raw
- vegetables and fruit primary
- agriculture
- cereals, total
- crops
- food
- livestock
- non food
- net production index number
- meat indigenous, total
- milk, total
- oilcrops primary
- roots and tubers, total
- sugar, raw
- vegetables and fruit primary
- agriculture
- cereals, total
- crops
- food
- livestock
- non food
- production
  - oil crops production in oil equivalent
  - agave fibres nes - land use
  - agave fibres nes - yield
  - agave fibres nes - production
  - almonds, with shell - land use
  - almonds, with shell - yield
  - almonds, with shell - production
  - anise, badian, fennel, corian. - land use
  - anise, badian, fennel, corian. - yield
  - anise, badian, fennel, corian. - production
  - apples - land use
  - apples - yield
  - apples - production
  - apricots - land use
  - apricots - yield
  - apricots - production



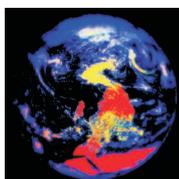
## DSI's Global Environmental Database 2020

arecanuts - land use  
arecanuts - yield  
arecanuts - production  
artichokes - land use  
artichokes - yield  
artichokes - production  
asparagus - land use  
asparagus - yield  
asparagus - production  
avocados - land use  
avocados - yield  
avocados - production  
bambara beans - seed  
bambara beans - land use  
bambara beans - yield  
bambara beans - production  
bananas - land use  
bananas - yield  
bananas - production  
barley - seed  
barley - land use  
barley - yield  
barley - production  
beans, dry - seed  
beans, dry - land use  
beans, dry - yield  
beans, dry - production  
beans, green - land use  
beans, green - yield  
beans, green - production  
berries nes - land use  
berries nes - yield  
berries nes - production  
blueberries - land use  
blueberries - yield  
blueberries - production  
brazil nuts, with shell - production  
brazil nuts, with shell - land use  
brazil nuts, with shell - yield



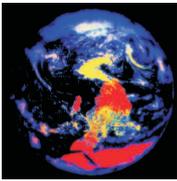
## DSI's Global Environmental Database 2020

broad beans, horse beans, dry - land use  
broad beans, horse beans, dry - yield  
broad beans, horse beans, dry - production  
broad beans, horse beans, dry - seed  
buckwheat - land use  
buckwheat - yield  
buckwheat - production  
buckwheat - seed  
cabbages and other brassicas - land use  
cabbages and other brassicas - yield  
cabbages and other brassicas - production  
cabbages and other brassicas - seed  
canary seed - seed  
canary seed - land use  
canary seed - yield  
canary seed - production  
carobs - land use  
carobs - yield  
carobs - production  
carrots and turnips - land use  
carrots and turnips - yield  
carrots and turnips - production  
carrots and turnips - seed  
cashew nuts, with shell - land use  
cashew nuts, with shell - yield  
cashew nuts, with shell - production  
cashewapple - land use  
cashewapple - yield  
cashewapple - production  
cassava - land use  
cassava - yield  
cassava - production  
cassava - seed  
cassava leaves - land use  
cassava leaves - yield  
cassava leaves - production  
castor oil seed - seed  
castor oil seed - land use  
castor oil seed - yield



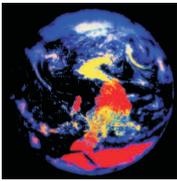
## DSI's Global Environmental Database 2020

castor oil seed - production  
cauliflowers and broccoli - land use  
cauliflowers and broccoli - yield  
cauliflowers and broccoli - production  
cauliflowers and broccoli - yield  
cereals (rice milled) - seed  
cereals (rice milled) - land use  
cereals (rice milled) - yield  
cereals (rice milled) - production  
cereals, not identified separately - seed  
cereals, not identified separately - land use  
cereals, not identified separately - yield  
cereals, not identified separately - production  
cereals, total - seed  
cereals, total - land use  
cereals, total - yield  
cereals, total - production  
cherries - land use  
cherries - production  
chestnuts - land use  
chestnuts - yield  
chestnuts - production  
chick peas - seed  
chick peas - land use  
chick peas - yield  
chick peas - production  
chicory roots - land use  
chicory roots - yield  
chicory roots - production  
chillies and peppers, dry - land use  
chillies and peppers, dry - yield  
chillies and peppers, dry - production  
chillies and peppers, green - land use  
chillies and peppers, green - yield  
chillies and peppers, green - production  
cinnamon (canella) - production  
cinnamon (canella) - land use  
cinnamon (canella) - yield  
citrus fruit, not identified separately - land use



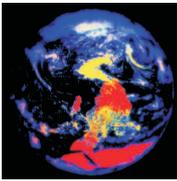
## DSI's Global Environmental Database 2019

citrus fruit, not identified separately - production  
citrus fruit, total - land use  
citrus fruit, total - yield  
citrus fruit, total - production  
cloves - land use  
cloves - yield  
cloves - production  
coarse grain, total - seed  
coarse grain, total - land use  
coarse grain, total - yield  
coarse grain, total - production  
cocoa beans - land use  
cocoa beans - yield  
cocoa beans - production  
coconuts - land use  
coconuts - yield  
coconuts - production  
coconuts - seed  
coffee, green - land use  
coffee, green - yield  
coffee, green - production  
coir - production  
cotton lint - production  
cottonseed - seed  
cottonseed - production  
cow peas, dry - seed  
cow peas, dry - land use  
cow peas, dry - yield  
cow peas, dry - production  
cranberries - land use  
cranberries - yield  
cranberries - production  
cucumbers and gherkins - land use  
cucumbers and gherkins - yield  
cucumbers and gherkins - production  
currants - land use  
currants - yield  
currants - production  
dates - land use



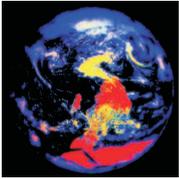
## DSI's Global Environmental Database 2020

dates - yield  
dates - production  
eggplants (aubergines) - land use  
eggplants (aubergines) - yield  
eggplants (aubergines) - production  
fibre crops nes - land use  
fibre crops nes - yield  
fibre crops nes - production  
fibre crops primary - land use  
fibre crops primary - yield  
fibre crops primary - production  
fibre crops primary - seed  
figs - land use  
figs - yield  
figs - production  
flax fibre and tow - land use  
flax fibre and tow - yield  
flax fibre and tow - production  
fonio - seed  
fonio - land use  
fonio - yield  
fonio - production  
fruit excl. melons, total - land use  
fruit excl. melons, total - yield  
fruit excl. melons, total - production  
fruit fresh nes - land use  
fruit fresh nes - yield  
fruit fresh nes - production  
fruit, tropical fresh nes - production  
fruit, tropical fresh nes - land use  
fruit, tropical fresh nes - yield  
garlic - land use  
garlic - yield  
garlic - production  
garlic - seed  
ginger - land use  
ginger - yield  
ginger - production  
gooseberries - land use



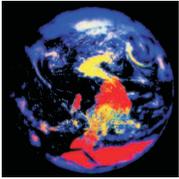
## DSI's Global Environmental Database 2020

gooseberries - yield  
gooseberries - production  
grapefruit (inc. pomelos) - land use  
grapefruit (inc. pomelos) - yield  
grapefruit (inc. pomelos) - production  
grapes - land use  
grapes - yield  
grapes - production  
groundnuts, with shell - land use  
groundnuts, with shell - yield  
groundnuts, with shell - production  
groundnuts, with shell - seed  
ums natural - production  
hazelnuts, with shell - land use  
hazelnuts, with shell - yield  
hazelnuts, with shell - production  
hemp tow waste - land use  
hemp tow waste - yield  
hemp tow waste - production  
hempseed - seed  
hempseed - land use  
hempseed - yield  
hempseed - production  
hops - land use  
hops - yield  
hops - production  
jojoba seeds - land use  
jojoba seeds - yield  
jojoba seeds - production  
jute - land use  
jute - yield  
jute - production  
jute & jute-like fibres - land use  
jute & jute-like fibres - yield  
jute & jute-like fibres - production  
kapok fibre - production  
kapok fibre - land use  
kapok fibre - yield  
kapok fibre - production



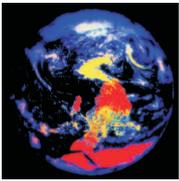
## DSI's Global Environmental Database 2020

kapokseed in shell - production  
karite nuts (sheanuts) - land use  
karite nuts (sheanuts) - yield  
karite nuts (sheanuts) - production  
kiwi fruit - land use  
kiwi fruit - yield  
kiwi fruit - production  
kolanuts - land use  
kolanuts - yield  
kolanuts - production  
leeks, other alliaceous veg - land use  
leeks, other alliaceous veg - yield  
leeks, other alliaceous veg - production  
leguminous vegetables, not identified separately - land use  
leguminous vegetables, not identified separately - yield  
leguminous vegetables, not identified separately - production  
lemons and limes - land use  
lemons and limes - yield  
lemons and limes - production  
lentils - seed  
lentils - land use  
lentils - yield  
lentils - production  
lettuce and chicory - land use  
lettuce and chicory - yield  
lettuce and chicory - production  
linseed - seed  
linseed - land use  
linseed - yield  
linseed - production  
lupins - land use  
lupins - yield  
lupins - production  
lupins - seed  
maize - seed  
maize - land use  
maize - yield  
maize - production  
maize, green - land use



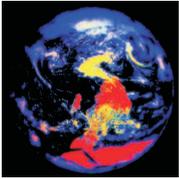
## DSI's Global Environmental Database 2020

maize, green - yield  
maize, green - production  
maize, green - seed  
mangoes, mangosteens, guavas - land use  
mangoes, mangosteens, guavas - yield  
mangoes, mangosteens, guavas - production  
manila fibre (abaca) - land use  
manila fibre (abaca) - yield  
manila fibre (abaca) - production  
maté - land use  
maté - yield  
maté - production  
melonseed - production  
melonseed - seed  
melonseed - land use  
melonseed - yield  
millet - seed  
millet - land use  
millet - yield  
millet - production  
mixed grain - seed  
mixed grain - land use  
mixed grain - yield  
mixed grain - production  
mushrooms and truffles - production  
mushrooms and truffles - land use  
mushrooms and truffles - yield  
mustard seed - land use  
mustard seed - yield  
mustard seed - production  
mustard seed - seed  
natural rubber - land use  
natural rubber - yield  
natural rubber - production  
nutmeg, mace and cardamoms - land use  
nutmeg, mace and cardamoms - yield  
nutmeg, mace and cardamoms - production  
nuts, not identified separately - land use  
nuts, not identified separately - yield



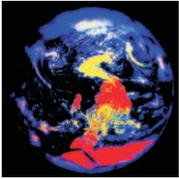
## DSI's Global Environmental Database 2020

nuts, not identified separately - production  
nuts, not identified separately - seed  
oats - seed  
oats - land use  
oats - yield  
oats - production  
oil palm fruit - land use  
oil palm fruit - yield  
oil palm fruit - production  
oilcakes equivalent - seed  
oilcakes equivalent - land use  
oilcakes equivalent - yield  
oilcakes equivalent - production  
oilcrops primary - seed  
oilcrops primary - land use  
oilcrops primary - yield  
oilcrops primary - production  
oilseeds, not identified separately - production  
oilseeds, not identified separately - land use  
oilseeds, not identified separately - yield  
oilseeds, not identified separately - seed  
okra - land use  
okra - yield  
okra - production  
okra - seed  
lives - land use  
lives - yield  
olives - production  
onions (incl. shallots), green - land use  
onions (incl. shallots), green - yield  
onions (incl. shallots), green - production  
onions (incl. shallots), green - seed  
onions, dry - land use  
onions, dry - yield  
onions, dry - production  
onions, dry - seed  
oranges - land use  
oranges - yield  
oranges - production



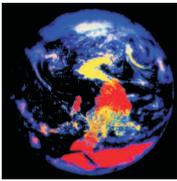
## DSI's Global Environmental Database 2020

other bastfibres - land use  
other bastfibres - yield  
other bastfibres - production  
other melons (incl. cantaloupes) - land use  
other melons (incl. cantaloupes) - yield  
other melons (incl. cantaloupes) - production  
palm kernels - production  
palm oil - production  
papayas - land use  
papayas - yield  
papayas - production  
peaches and nectarines - land use  
peaches and nectarines - yield  
peaches and nectarines - production  
pears - land use  
pears - yield  
pears - production  
peas, dry - seed  
peas, dry - land use  
peas, dry - yield  
peas, dry - production  
peas, green - land use  
peas, green - yield  
peas, green - production  
pepper (piper spp.) - land use  
pepper (piper spp.) - yield  
pepper (piper spp.) - production  
peppermint - production  
peppermint - land use  
peppermint - yield  
persimmons - land use  
persimmons - yield  
persimmons - production  
pigeon peas - seed  
pigeon peas - land use  
pigeon peas - yield  
pigeon peas - production  
pineapples - land use  
pineapples - yield



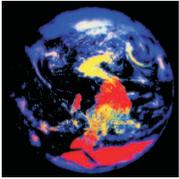
## DSI's Global Environmental Database 2020

pineapples - production  
pistachios - land use  
pistachios - yield  
pistachios - production  
plantains - land use  
plantains - yield  
plantains - production  
plums and sloes - land use  
plums and sloes - yield  
plums and sloes - production  
pome fruit, not identified separately - land use  
pome fruit, not identified separately - yield  
pome fruit, not identified separately - production  
popcorn - land use  
popcorn - yield  
popcorn - production  
poppy seed - seed  
poppy seed - land use  
poppy seed - yield  
poppy seed - production  
potatoes - seed  
potatoes - land use  
potatoes - yield  
potatoes - production  
pulses, not identified separately - seed  
pulses, not identified separately - land use  
pulses, not identified separately - yield  
pulses, not identified separately - production  
pulses, total - seed  
pulses, total - land use  
pulses, total - yield  
pulses, total - production  
pumpkins, squash and gourds - land use  
pumpkins, squash and gourds - yield  
pumpkins, squash and gourds - production  
pyrethrum, dried - production  
pyrethrum, dried - land use  
pyrethrum, dried - yield  
quinces - land use



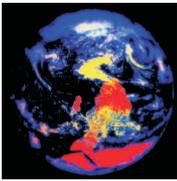
## DSI's Global Environmental Database 2020

quinces - yield  
quinces - production  
quinoa - seed  
quinoa - land use  
quinoa - yield  
quinoa - production  
ramie - land use  
ramie - yield  
ramie - production  
rapeseed - land use  
rapeseed - yield  
rapeseed - production  
rapeseed - seed  
raspberries - land use  
raspberries - yield  
raspberries - production  
rice, paddy - seed  
rice, paddy - land use  
rice, paddy - yield  
rice, paddy - production  
roots and tubers, not identified separately - land use  
roots and tubers, not identified separately - yield  
roots and tubers, not identified separately - production  
roots and tubers, not identified separately - seed  
roots and tubers, total - seed  
roots and tubers, total - land use  
roots and tubers, total - yield  
roots and tubers, total - production  
rye - seed  
rye - land use  
rye - yield  
rye - production  
safflower seed - seed  
safflower seed - land use  
safflower seed - yield  
safflower seed - production  
sangerines, mandarins, clem. - land use  
sangerines, mandarins, clem. - yield  
sangerines, mandarins, clem. - production



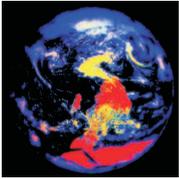
## DSI's Global Environmental Database 2020

seed cotton - land use  
seed cotton - yield  
seed cotton - production  
seed cotton - seed  
sesame seed - seed  
sesame seed - land use  
sesame seed - yield  
sesame seed - production  
sisal - land use  
sisal - yield  
sisal - production  
sorghum - seed  
sorghum - land use  
sorghum - yield  
sorghum - production  
sour cherries - land use  
sour cherries - yield  
sour cherries - production  
soybeans - seed  
soybeans - yield  
soybeans - production  
spices, not identified separately - land use  
spices, not identified separately - yield  
spices, not identified separately - production  
spinach - land use  
spinach - yield  
spinach - production  
stone fruit, not identified separately - land use  
stone fruit, not identified separately - yield  
stone fruit, not identified separately - production  
strawberries - production  
strawberries - land use  
strawberries - yield  
string beans - land use  
string beans - yield  
string beans - production  
sugar beet - land use  
sugar beet - yield  
sugar beet - production



## DSI's Global Environmental Database 2020

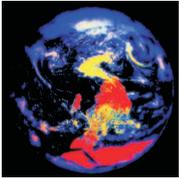
sugar cane - land use  
sugar cane - yield  
sugar cane - production  
sugar cane - seed  
sugar crops, not identified separately - land use  
sugar crops, not identified separately - yield  
sugar crops, not identified separately - production  
sunflower seed - seed  
sunflower seed - land use  
sunflower seed - yield  
sunflower seed - production  
sweet potatoes - land use  
sweet potatoes - yield  
sweet potatoes - production  
sweet potatoes - seed  
taro (cocoyam) - land use  
taro (cocoyam) - yield  
taro (cocoyam) - production  
taro (cocoyam) - seed  
tea - land use  
tea - yield  
tea - production  
tobacco, unmanufactured - land use  
tobacco, unmanufactured - yield  
tobacco, unmanufactured - production  
tomatoes - land use  
tomatoes - yield  
tomatoes - production  
treenuts, total - land use  
treenuts, total - yield  
treenuts, total - production  
treenuts, total - seed  
triticale - land use  
triticale - yield  
triticale - production  
triticale - seed  
tung Nuts - land use  
tung Nuts - yield  
tung Nuts - production



## DSI's Global Environmental Database 2020

vanilla - land use  
vanilla - yield  
vanilla - production  
vegetables & melons, total - land use  
vegetables & melons, total - yield  
vegetables & melons, total - production  
vegetables & melons, total - seed  
vegetables fresh nes - production  
vegetables fresh nes - seed  
vegetables primary - land use  
vegetables primary - yield  
vegetables primary - production  
vegetables primary - seed  
vetches - seed  
vetches - land use  
vetches - yield  
vetches - production  
walnuts, with shell - land use  
walnuts, with shell - yield  
walnuts, with shell - production  
watermelons - land use  
watermelons - production  
watermelons - seed  
wheat - seed  
wheat - land use  
wheat - yield  
wheat - production  
yams - land use  
yams - yield  
yams - production  
yams - seed  
yautia (cocoyam) - land use  
yautia (cocoyam) - yield  
yautia (cocoyam) - production  
yautia (cocoyam) - seed

- farming  
asses stocks  
camels stocks  
cattle stocks

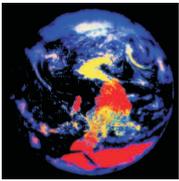


## DSI's Global Environmental Database 2020

- cattle and buffaloes stocks
- chickens stocks
- goats stocks
- horses stocks
- mules stocks
- poultry stocks
- sheep stocks
- sheep and goats stocks
- beehives stocks
- buffaloes stocks
- ducks stocks
- geese and guinea fowls stocks
- pigs stocks
- turkeys stocks
- rabbits and hares stocks
- other camelids stocks
- other rodents stocks
- pigeons stocks

- fishery
  - global production (catches)
    - fishery products
      - total all fishing regions
      - inland waters total
    - aquaculture production
      - fishery products
        - total
        - freshwater
        - brackish water
        - seawater
- forestry
  - roundwood production - total
- biodiversity
  - animal species - threatened
  - plant species - threatened
  - total species - threatened

### III. Mineral Resources



# DSI's Global Environmental Database 2020

- estimated recoverable coal
- crude oil reserves
- natural gas reserves
- uranium reserves
- uranium reserves - speculative

## IV. Energy Consumption

- by sector

coal

- energy industries
- manufacturing industries and construction
- transport
- other (includes agriculture, commercial and public services, residential, and non-specific other)
- total

gas

- energy industries
- manufacturing industries and construction
- transport
- other (includes agriculture, commercial and public services, residential, and non-specific other)
- total

oil

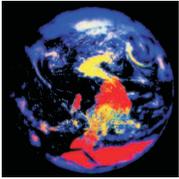
- energy industries
- manufacturing industries and construction
- transport
- other (includes agriculture, commercial and public services, residential, and non-specific other)
- total

charcoal

- energy industries
- manufacturing industries and construction
- transport
- other (includes agriculture, commercial and public services, residential, and non-specific other)
- total

biomass, wood, waste

- manufacturing industries and construction



# DSI's Global Environmental Database 2019

other (includes agriculture, commercial and public services,  
residential, and non-specific other)

total

all fuels incl. biomass

fossile fuels total

sectoral aggregation

total and total fossil

energy industries

manufacturing industries and construction

transport

other (includes agriculture, commercial and public services,  
residential, and non-specific other)

## V. Human Resources

- population

total population

urban population

rural population

population in urban areas

annual population growth rate

percentage of population aged 60+ years

total fertility rate

population density

female economically active population in agriculture

male economically active population in agriculture

total economically active population in agriculture

- education

net primary school enrollment - males

net primary school enrollment - females

- skills

adult literacy rate

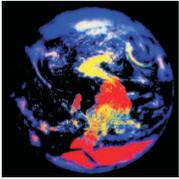
illiterate population

## VI. Social Conditions

- health

diseases

population affected by water related disease



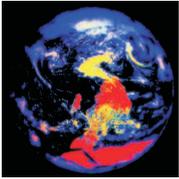
# DSI's Global Environmental Database 2020

- HIV prevalence aged 15 to 49
- tuberculosis - incidence
- healthy life expectancy at birth
  - healthy life expectancy at birth - total population
  - healthy life expectancy at birth - males
  - healthy life expectancy at birth - females
- life expectancy at birth
  - life expectancy at birth - total population
  - life expectancy at birth - males
  - life expectancy at birth - females
- mortality
  - children neonatale rate
  - children birth up to age 1
  - children < 5
  - adult (males, females, total)
  - maternal mortality
- expenditure on health
  - private expenditure on health
  - general government expenditure on health
  - external resources for health
  - social security expenditure on health
  - out-of-pocket expenditure on health
  - prepaid plans
  - total expenditure on health
  - per capita government expenditure on health
- sanitation
- poverty
  - total population
  - rural population
  - urban population
- losses/natural disasters \*)
  - affected people
  - killed people

\*) natural disasters := drought, earthquake/seismic activity, epidemic, extreme temperature, flood, insect infestation, mass movement: dry and wet, volcanos, wild fire, storm

## VII. Economic Core Indicators

- GDP
- production
- trade
- exchange rates



# DSI's Global Environmental Database 2020

## Methodologies for the calculation of energy consumption

### Introduction

The calculation of energy consumption is based on a sectoral view by using the Tier 1 Sectoral Approach from the Revised 1996 IPCC (Intergovernmental Panel on Climate Change) Guidelines for National Greenhouse Gas Inventories.

Sectors:

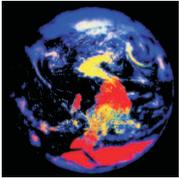
- Energy Sector (IPCC Source/Sink Category 1A1)
- Manufacturing and Construction Sector (IPCC Source/Sink Category 1A2)
- Transport Sector (IPCC Source/Sink Category 1A3)
- Other Sectors (IPCC Source/Sink Category 1A4)

Fuel categories:

- Fossile Fuels
  - Coal
  - Natural Gas
  - Oil
- Charcoal
- Biomass and Wastes

### Recalculations

To make data more comparable all energy statistics are recalculated and expressed in Terra Joule (TJ) units. The underlying Net Calorific Values (NCV) are estimated by Kainou Kazunari (Kazunari, Kainou 2005: Revision of default Net Calorific Value, Carbon Content Factor and Carbon Oxidization Factor for various fuels in 2006 IPCC GHG Inventory Guideline) and might differ from the default values as listed in the 1996 IPCC guidelines.



# DSI's Global Environmental Database 2020

## **Methodologies for the calculation of greenhouse gas emissions**

### Introduction

Based on the sectoral energy statistics, as calculated in this publication, the greenhouse gas emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, NO<sub>x</sub>, CO, NOVOC) and the emission of sulphur dioxide (SO<sub>2</sub>) are also determined by the Tier 1 Sectoral Approach from the Revised 1996 IPCC (Intergovernmental Panel on Climate Change) Guidelines for National Greenhouse Gas Inventories.

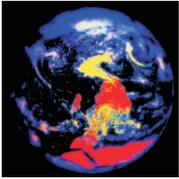
### CO<sub>2</sub> Emissions

The Carbon Emission Factors (CEF) used here are estimated by Kainou Kazunari (Kazunari, Kainou 2005: Revision of default Net Calorific Value, Carbon Content Factor and Carbon Oxidization Factor for various fuels in 2006 IPCC GHG Inventory Guideline) and might differ from the default values as listed in the 1996 IPCC guidelines.

To harmonise the statistical results the CEF values shown there are used for all countries. Stored carbon is not specially calculated.

### CH<sub>4</sub>, N<sub>2</sub>O, NO<sub>x</sub>, CO, NOVOC, SO<sub>2</sub> Emissions

The emission factors could vary from the default values as shown in the Revised 1996 IPCC Guidelines: the sectors "Transport" and "Other Sectors" are calculated on one aggregated level with one emission factor per fuel category only.



# DSI's Global Environmental Database 2020

## Abbreviations

### multiplication factors

10 <sup>15</sup>	1 000 000 000 000 000	peta
10 <sup>12</sup>	1 000 000 000 000	tera
10 <sup>9</sup>	1 000 000 000	giga
10 <sup>6</sup>	1 000 000	mega
10 <sup>3</sup>	1 000	kilo
10 <sup>-6</sup>	0,000001	microgram

### units

t	metric tonne
k	kilogram
TJ	tera joule (1 TJ = 2,388*10 <sup>-5</sup> Mtoe)
TJ - net	tera joule - net calorific value
info note Mtoe	million tonnes of oil equivalent
m <sup>3</sup>	cubic metre
ha	hectar
hg	hectogram
°C	degree Celsius
yr	year
mm	millimetre
mio	million
%	percent
ODP	ozone depleting potential
ppm	parts per million
ug	microgram
kcal	kilocalorie

### chemical compounds

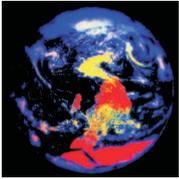
CFCs	chlorofluorocarbons
CH4	methane
CO	carbon monoxide
CO2	carbon dioxide
HCFCs	hydrochlorofluorocarbons
N2O	nitrous oxide
NM VOC	non-methane volatile organic compound
NOX	nitrogen oxides
SO2	sulphur dioxide

### standard equivalents

1 TJ	23.885 tonnes of oil equivalent (toe)
1 t	1.1023 short tons
1 ha	10 000 m <sup>2</sup> (square metres)
1 hg	0,1 kg

### other

BOD	biochemical oxygene demand
PM 10	particular matter < 10ug



# DSI's Global Environmental Database 2020

## sources of the underlying data material or methods

CRED	Centre for Research on the Epidemiology of Desasters
DSI	DSI Data Service & Information
EEA	European Environment Agency
EIA	Energy Information Administration
Eurostat	Statistical Office of the European Communities
FAO	Food and Agriculture Organization of the United Nations
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for the Conservation of Nature and Natural Resources
OECD	Organisation for Economic Co-operation and Development
UN	United Nations and its specialized agencies
WB	World Bank
WDCGG	World Data Centre for Greenhouse Gases
WDPA	World Database on Protected Areas - WDPA Consortium
WHO	World Health Organization