CICES V2

The aim of the classification shown on the next spreadsheet is to develop a flexible stru
goods and ecosystem service that are being discussed in on-going international initiativ
groupings considered in the SEEA. In proposing this structure the aim is not to put forw
typologies, but to provide a comprehensive standard that allows the translation betwee
the spreadsheet shows the relationship to the classificaiton proposed in TEEB.

The development of this draft standard has also taken account of the need to link servic
international standard classifications for products and activities; a prerequisite of the de
initially be generic and amenable to further sub-categorisation to produce a nested, hie
possible, to use terminology and definitions around which consensus exists.

The classification is based on the widely accepted definition of ecosystem services as ***th***
human well being. The classification also seeks to distinguish 'services' from 'benefits'.
human well-being (e.g. health) while a service is anything that may change the level of t
Following Fisher et al. (2009) the benefits humans gain from ecosystems are seen as be
services; essentially services should be ***ecological or bipohysical phenomena***.

For the purposes of the classification the term 'ecosystem services' refers to both 'good
distinctionbetween the provisioning theme on the one hand, and the regulating and cul
separate the two sets of ecosystem outputs.

To help with the problem of valuation and more particularly the cross-tabulation of serv
classifications, CICES focuses on the 'final' products our outputs of ecosystems, rather t
functions. At the top level there are three major **Themes** (Provisioning, Regulating and
identified, each subdivided into a number of **Types**. The types can be subdivided furthe

ıcture that broadly links the categories of
'es such as the MA, TEEB, and the functional
ard a scheme that replaces any existing
en different systems. By way of illustration,

ce classes to groupings used in the various
esign has been that the groupings should
erarchical structure. It attempts, where

ıe contributions that ecosystems make to
Thus a benefit is seen as a component of
that benefit (e.g. air quality, food supply).
ing derived from intermediate and final

ls' and 'services', although the
ltural themes on the other, can be used to

vices with other product and activity
han on intermediate or supporting services or
Cultural). Within these ten service **Classes** are
r as use of the classification develops.

Theme	Service Class	Service Group
Provisioning	Nutrition	Terrestrial plant and animal foodstuffs
		Freshwater plant and animal foodstuffs
		Marine plant and animal foodstuffs
		Potable water
	Materials	Biotic materials
		Abiotic materials
	Energy	Renewable biofuels
		Renewable abiotic energy sources
nd Maintenance	Regulation of wastes	Bioremediation
		Dilution and sequestration
	Flow regulation	Air flow regulation
		Water flow regulation
		Mass flow regulation

Regulation a	**Regulation of physical environment**	Atmospheric regulation
		Water quality regulation
		Pedogenesis and soil quality regulation
	Regulation of biotic environment	Lifecycle maintenance & habitat protection
		Pest and disease control
		Gene pool protection
Cultural	**Symbolic**	Aesthetic, Heritage
		Spiritual
	Intellectual and Experiential	Recreation and community activities
		Information & knowledge

Service Type	Sub-types
Commercial cropping	eg. by crops
Subsistence cropping	eg. by crops
Commercial animal production	eg. by animal type
Subsistence animal production	eg. by animal type
Harvesting wild plants and animals for food	eg. by resource
Commercial fishing (wild populations)	eg. by fishery
Subsistence fishing	eg. by fishery
Aquaculture	eg. by fishery
Harvesting fresh water plants for food	eg. by resource
Commercial fishing (wild populations)	eg. by fishery
Subsistence fishing	eg. by fishery
Aquaculture	eg. by fishery
Harvesting marine plants for food	eg. by resource
Water storage	eg. by feature
Water purification	eg. by habitat
Non-food plant fibres	eg. by resource
Non-food animal fibres	eg. by resource
Ornamental resources	eg. by resource
Genetic resources	eg. by resource
Medicinal resources	eg. by resource
Mineral resources	
Plant based resources	eg. by resource
Animal based resources	eg. by resource
Wind	eg. by resource
Hydro	eg. by resource
Solar	eg. by resource
Tidal	eg. by resource
Thermal	eg. by resource
Remediation using plants	eg. by method
Remediation using micro-organisms	eg. by method
Dilution	eg. by method
Filtration	eg. by method
Sequestration and absorption	eg. by method
Windbreaks, shelter belts	eg. by process
Ventilation	eg. by process
Attenuation of runoff and discharge rates	eg. by process
Water storage	eg. by process
Sedimentation	eg. by process
Attenuation of wave energy	eg. by process
Erosion protection	eg. by process
Avalanche protection	eg. by process

Global climate regulation (incl. C-sequestration)	eg. by process
Local & Regional climate regulation	eg. by process
Water purification and oxygenation	eg. by process
Cooling water	eg. by process
Maintenance of soil fertility	eg. by process
Maintenance of soil structure	eg. by process
Pollination	eg. by process
Seed dispersal	eg. by process
Biological control mechanisms	eg. by process
Maintaining nursery populations	eg. by process
Landscape character	eg. by resource
Cultural landscapes	eg. by resource
Wilderness, naturalness	eg. by resource
Sacred places or species	eg. by resource
Charismatic or iconic wildlife or habitats	eg. by resource
Prey for hunting or collecting	eg. by resource
Scientific	eg. by resource
Educational	eg. by resource

Examples and indicative benefits
Cereals, vegetables, vines etc.
Cereals, vegetables, vines etc.
Sheep, cattle for meat and dairy products
Sheep, cattle for meat and dairy products
Berries, fungi etc
Water cress
Includes crustaceans
Includes crustaceans
Includes crustaceans
Seaweed
Spring, well water, river, reservoir, lake
Wetlands
Timber, straw, flax
Skin, bone etc., guano
Bulbs, cut flowers, shells, bones and feathers etc. (Stones? Gems?)
Wild species used in breeding programmes
Bio prospecting activities
Salt, aggregates, etc. (include but EXCLUDE subsurface assets)
Wood fuel, energy crops, peat etc.
Dung, fat, oils
EXCLUDE subsurface assets such as oil, coal
Phytoaccumulation, phytodegredation, phytostabilisation, rhizodegradation,
In situ (Bioremediation), ex situ (composting), bioreactors
Wastewater treatment
Filtration of particulates and aerosols
Sequestration of nutrients in organic sediments, removal of odours
Woodlands, wetlands and their impact on discharge rates
Irrigation water
Navigation?
Mangroves
Wetlands reducing discharge peak
Stabilisation of mudflows, erosion protection [reduction]

Atmospheric composition, hydrological cycle
Modifying temperature, humidity etc.; maintenance of regional precipitation patterns
Nutrient retention in buffer strips etc. and translocation of nutrients
For power production
Green mulches; n-fixing plants
Soil organism activity
By plants and animals
By plants and animals
By plants and animals, control of pathogens
Habitat refuges
Areas of outstanding natural beauty
Sense of place
Tranquillity, isolation
Woodland cemeteries, sky burials
Bird or whale watching, conservation activities, volunteering
Angling, shooting, membership of environmental groups and organisations
Pollen record, tree ring record, genetic patterns
Subject matter for wildlife programmes and books etc.

TEEB Classes
Food
Water
Raw Materials
Ornamental resources
Genetic resources
Medicinal resources

Air purification
Disturbance prevention or moderation
Regulation of water flows
Erosion prevention

Climate regulation (incl. C-sequestration)

Maintaining soil fertility

Lifecycle maintenance
Pollination
Biological control
Gene pool protection
Inspiration for culture, art and design
Aesthetic information
Spiritual experience

Recreation & tourism

Information for cognitive development