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Main topic

Eco-labelling

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IMPRESSUM

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Editorial

President's Address, Labelling

Dear Reader,

Looking back to the last ECOHB NEWS LETTER we hope you noted some more small improvements for example within the 'impressum' and in the structure of the whole. Gabriella Pál took quite a time for doing this as well as the final lay out, so far, the given material had been ready to allow the necessary corrections. We, from the editorial staff, are very grateful for this additional and important assistance. Because of this reason, you see beside the 'impressum' an expansion of the team, dealing with our global periodical.

In this new issue in the fall of 2005 we go to work – as already announced – on the topic of LABELING.
This means *labelling* of *building materials, products, components,* and *services* for *environmentally-conscious* and *healthy building* in all over the world. This of course is again a very wide field, which contains also a wide range of *categories*. Hence there is a certain necessity to strongly compress this wide field to a clear and simple view on reality certainly in the frame of an editorial.

We fortunately go again to discuss all these subjects, like other wide fields in this electronic magazine, which means that we will come back later on time, after we have started today to deal – of course only partially and never complete – with this huge subject of *labelling*. Some over-viewing thoughts might be on its place here and today.

However, *labelling* – in our context – is a result after *weighing, ranking, judging* the *"products"* and their *components* where it is going about. *Data* as well as *estimations, valuations, ratings, etc.* will play a paramount role in *labelling,* which has the two sides of simply being a base for *choices of products* or/and a(n official) *condition for allowed application of products*. There are a few fundamental items concerning *labelling*:

1 the one(s) who either is (are) in the need or even demand(s) to get a labelling-instrument;
2 the task or commission for developing a label according to certain criteria;
3 the one(s) who develop(s) a label;
4 the process of labelling;
5 the one(s) who go to execute(s) or realise(s) labelling;

In this overview we found these five items. Within these five items you can recognize some different categories. For all of them - eventually overlapping - we go to discuss some principles:

Before going into the five items it should be stated that the criteria for *labelling* have to be based on qualifications, which we can characterize as *human(e)-ecological, integral bio-logical,(w) holistically,* or *'inclusive'*, as they nowadays are called more and more often. It is further of the highest significance that *values* have to guide *regulations* or in other words: *qualitative criteria* have to rule *quantitative data*.

An important aspect of *labelling* is to take in consideration the *short, middle long, long terms* and even nearly *endless effects* as well as *side effects,* which the application of a certain material, energy, service,… could have. *Without these dimensions of possible effects we cannot speak about a responsible labelling*.

It might also be interesting to look, just by random test, to what we can find on the "market" of what we all can call also *labelling*.

There are, dependant from the language area, lots of names for certain products in order to show their quality, like (Blue or Green) Angel, Best, Better, Bio-…, Bio DataBank, Bonus, Brand, Eco-…, Environmentally-conscious, -friendly,-sound, Flower, Good, Green, Green Calc, Logo-…, Healthy, Nature Plus, Seal, Standard, Weapon,…and many, many more.
(In case you know more – please mail us the names of them, preferably with the logo and the data where it or where they come(s) from. Thanks a lot in advance!)
The concerned "products" are mostly certified, checked, controlled, examined, evaluated, labelled, measured, proved, ranked, rated, tested, sealed, qualified, validated, weighted, or, or, or…

Returning to the *five mentioned categories* concerning *labelling* we observe the following circumstances:
One
Labelling is a help for decision-making. In the light of responsible sustainable building, it is practical to choose the best products with the lowest possible negative impact on both human health and environment. A *label* of a product should of course show all qualifications – as described above – in order to enable the decision maker to decide indeed responsible. Sometimes there is a need to use certain *labelled* products in order to win the fight within concurring partners.
Two
As we know, there are already many labels and similar seals. Nevertheless, more ones that are new in development. This has its reason in the trend to make more specific, more complete, and – together with the necessary calculation methods and/or models - more simple applicable - simply - better ones. It remains as essential condition, which all relevant aspects, as discussed in his contribution, have to be taken into consideration.
Three
For developing the actually inseparable from each other pair partners of label and calculation/method-model, we demand – once more - that the qualitative aspects of healthy and environmentally conscious conditions have to guide all data, integrally. Clearness has to be given about the whole impact on health and environment, with all possible effects and side effects on short, middle long, long, and sometimes endless term.
Four
Labelling with all connected conditions, tasks, and considering the relevant criteria is a complex and very labour intensive job. It is an activity, which demands high responsibility and integrity in combination with an integral view on the subject and the related fields. Practically there is a consortium of experts needed. His task is carefully to consult about the sometimes-subtle aspects that could lead to a *label* or to *labelling* of a certain product. A *labelled product* always has to be accompanied by a full declaration of the ingredients where it is made from, together with their possible effects and side effects.
Five
The execution of *labelling* includes a permanent control of its validity and actuality, after a careful procedure of research of all to the product related factors, which should be *labelled*. This makes it necessary to always put the *date and of course the place of labelling*, and eventually the *date of expiration* on the product or on its packaging or on an accompanying certificate.

Tens of different (Life Cycle) analyses (LCA), (calculation)methods, models, and strategies are already developed in the most of the advanced countries, and they are more or less simple or complicated, cheap or expensive available for putting the various "products" on the ladder of the health impact and/or the environmental impact in order to get an assessment result.

We would like to offer you, wherever you possibly have your place within the five discussed categories, a kind of Rule of Thumb in the form of the MCM-Material Choice Matrix concerning this obvious problem:

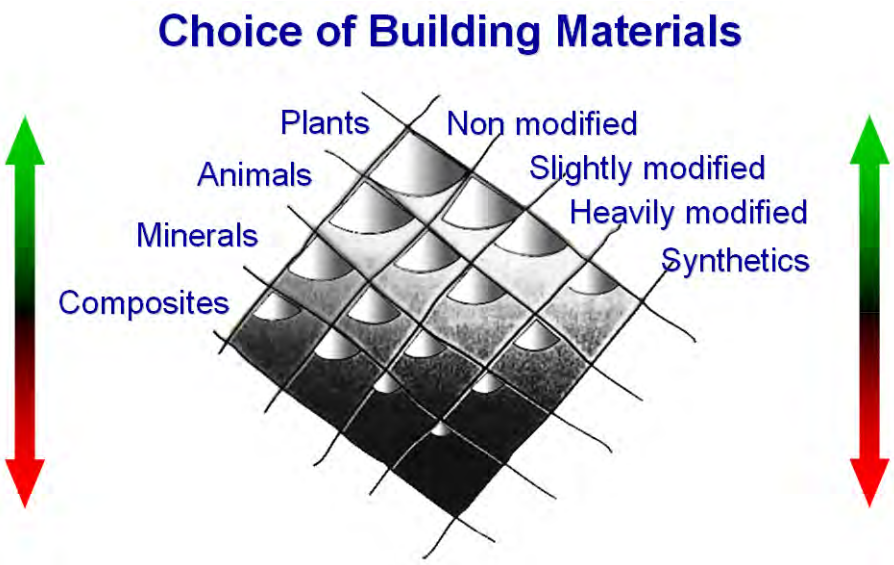

Figure 1
The MCM-Material Choice Matrix
Most building designs and buildings show a huge number and mixture of different building materials and components
The Material Choice Matrix can help to make a responsible choice between the many possibilities marketed to the designer, and decision-maker.
The lower in the matrix we make a choice of a building material, the greater the risk of environmental damage as well as health hazards. The more choices taken from the upper and highest part of the matrix, the more chance we have generally to obtain healthy and environmentally sound results. Impact includes all treatment and handling, including energy content, transport, etc. of a material, product, component, or building part – from cradle to grave and also from cradle to cradle, in case of a second, third,… life.

The MCM-Material Choice Matrix is shown as a principal and exemplar approach. Similarly, it is possible to choose and to handle also other subjects than material: Energy and Production and Building Methods but also all kind of Services in terms of installation or equipment for indoor climate as well as Service in the sense of all facilities, needed to get the conditions and necessary activities done.

In order to check or to evaluate a possible result after applying the MCM or a similar principle for a roughly check we advise to use the Health Impact Assessment-HIA and the Environmental Impact Assessment EIA.

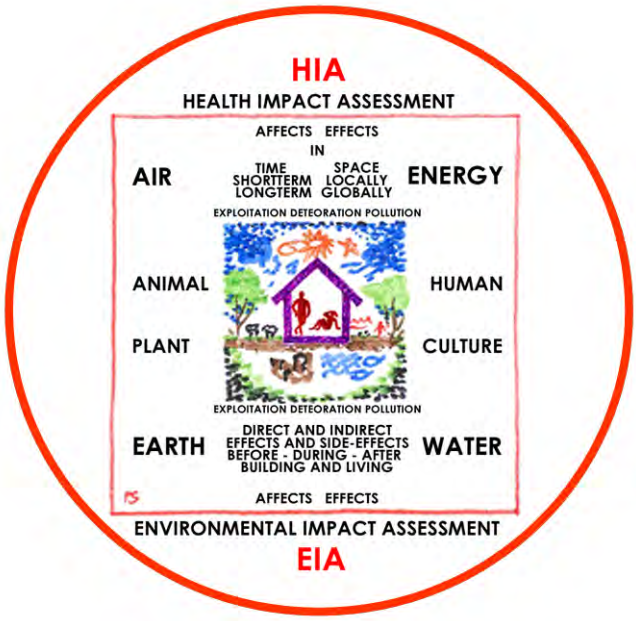

Figure 2 and Figure 3 – two in one
Here is a simple frame for a quick check for both
HIA-Health Impact Assessment and EIA-Environmental Impact Assessment.
For the EIA you estimate the disturbance within the eight fields, water and earth, air and energy, plant and animal, human and human culture.
You can put your guess into a list or into a star diagram with the eight beams.
For the HIA you estimate (also) the disturbances within the eight fields by the (planned) building activities, e.g. deterioration, exploitation, intoxication, pollution, dying out of species, and so on, but now as a danger or impact on human beings.
There is a high level of agreement between environmental and health impacts.
In fact environment and health is/are even inseparable.
We look once to the environment and once to our own health in order to sharpen our awareness of the important interrelationship
between our nature, environment, buildings and ourselves.
By means of a simple scale between 'bad' and 'good' you can estimate the impact, eventually in maximum and minimum values, and you can easily see how the impact of the production and/or application of a building material, product, component, the use of energy, and the infill of a location can be characterized.
Both the HIA and EIA can give some quick, may be already crucial estimations.

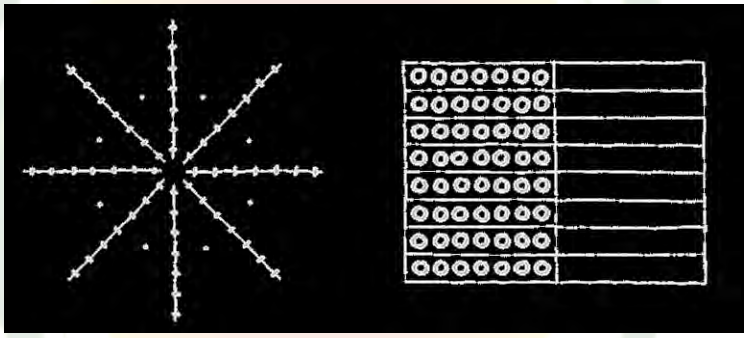

Figure 4
A star diagram can express the intensity of a healthy and environmentally sound building or a designed object with serious risks for health and environment.
On the lines, beside the star diagram, we could fill in estimations for the health and environmental impacts on short, middle long, long, and endless term.

We hope that the following contribution goes to stimulate you either in making responsible choices in relation to material and energy, process and service or in using the proper instruments for these decisions committed to the fundamental needs, defined in the approach towards an integral or holistic bio-logical or human(e) and ecological building for our only common world.

We wish you much benefited by reading.

Peter Schmid
ECOHB – president

Articles

Eco-labels – too much and too less!

An Indonesian student told me recently that his mother always paid attention to choose and buy the vegetables and fruit with worm wholes or traces of insects in it. If so small animals could grow and survive in those vegetables, so went the explanation, the pesticide application could not have been that big and bad and therefore there was only a relative small amount of those harmful substances left in or on it, so the consumption was less dangerous for human. I replied consumers in Switzerland had the choice of eco-labeled products for this, which guaranteed, that the products were, besides other criteria, healthy and not harmful. In this time, we had already so many different labels, and there were constantly new labels appearing, that I got often quiet confused during my shopping. Sometimes the products were ecological, sometimes especially socially acceptable, sometimes biological, sometimes local produced and very often in a combination of these criteria. I as a consumer very often did not know the particular production conditions and regulations of a specific label, respectively I was not able to find out the differences between label X and label Y. I told him further, that in Switzerland already quiet a big demand after labeled products existed, but this circumstance had led, besides others, to exactly this "label salad" we had in Switzerland, because there were always new labels created with slightly different production conditions. The student said thereupon, there was since some time ago a special governmental office existing, which worked on the eco-label issue, but there was not any progress going on with the working out of the regulations. Anyway, he guessed, the demand of the consumers in Indonesia to labeled products was still very small, most of the people still would not know the meaning and use of a label yet. I told him then, that since I lived in Indonesia I had met only very few, "alternative" restaurants which offered ecological produced food and those restaurants were clearly focused towards foreign tourists. I myself would buy my food now in the little village markets and pay attention to local seasonal products. Doing so, I could at least support local small-scale farmers, although I had no influence on the amount and kind of fertilizers and pesticides used. Of course, the student suggested immediately, that in future I should pay attention to the worm affection of the products as well. I only laughed and said, well, here in Indonesia consumers apparently were forced to bite themselves through worm-eaten vegetables, whereas in Switzerland people had to master the label salad in order to get healthy, ecological food.

Petra Widmer, dipl. natw. ETH

Information Content of Eco-labels in the Building Material Sector

The United Nation Initiative 'The Global Compact' has laid down its principles on

Human rights:
principle 1 - observance and support of human rights
principle 2 - no violation of human rights

Labor legislation:
principle 3 - right of assembly and negotiations
principle 4 - prohibition of forced labor
principle 5 - prohibition of children labor
principle 6 - no discrimination in employment conditions

Environmental conservation:
principle 7 - support of a proactive environment strategy
principle 8 - take more responsibility upon environment
principle 9 - support of development of new environmental friendly technologies

Due to the last points on environmental conservation and the fact of the growing pollution of our environment (earth, water and air), the need of information about damage to the environment is vital for buyers and users of any product produced.

One approach is the use of eco-labels. Although since 1995 Indonesia has an official eco-label institution, no label has been created neither in the field of food, nor clothing, nor housing. Even for food, the obligation for the declaration of contents is very non-transparent.

An eco-label is a voluntary instrument in environmental politics, but it is only applicable if:

- environmentally friendly products can be tested independently,
- producers are interested to use environmental arguments in their advertising,
- users observe the eco-label at the time they buy a product.

For an eco-label, therefore only products are suitable which have certain advantages in environmental issues against their competing producers, especially if they:

- produce less pollution (earth, water, air, as well as noise)
- contain no or very little poisoning substances
- produce products out of recycling materials or which are liable for recycling.

An Indonesian eco-label should therefore give full information about environmental pollution, danger to the environment and the health of its users. The eco-label itself should give basic information at short sight, but there should be an additional leaflet with detailed information for environmentally aware customers (see also: Ménard, Martin et al. *Background Inventory Data.* In: Schaltegger, S. ed. *Life Cycle Assessment (LCA) - Quo vadis?* Basel: Birkhäuser, 1996. p. 39-49). This information should contain the whole life cycle of a product (raw material, production processes, use and durability, cleaning and maintenance, possibility to reuse, to recycle or how to dump), the impacts to the environment, as well as the primary (not renewable) energy input at each stage.

The awareness about ecology and environment has to be improved in order to give a basic knowledge to people. Even if this basic knowledge does not guarantee any changes in

environmental behavior, the economic needs and the technological improvement will force the application of certain basic standards. The introduction of eco-label could therefore show the way towards an environmental friendly production and utilization of the needed goods.

The following arguments are confined to environmentally conscious and healthy building and living in connection with building material eco-labels.

Houses and living quarters are made of a multitude of materials, which can be joined and assembled in various manners by the builders. Although buildings consist of clear-cut material components, nevertheless the environment is polluted by the production and usage of these products (ecological factor). In addition to this, the health of the resident can be affected by toxic evaporations (health factors).

In Europe quite a lot of eco-labels on building materials are known, although their information content differs a lot, as the few following examples demonstrate:

- The blue angel (Germany) rates the extensive disclaim of solvents and pollutants on production process
- The label Minergie (Switzerland) rates exclusively the low energy balance of a building
- Timber from sustainable forestry is certificated by the Forest Stewartship Council (FSC, international)
- The Nature plus label (Germany, Austria, Italy, Switzerland, BeNeLux) rates the extensive disclaim of pollutants on production processes and the recycling properties.

These few examples from Europe pictures the arising problems:

- A simple label can only rate one argument at the same time (the extensive disclaim of solvents, disclaim of pollutants on production process, sustainable forestry, or a low energy balance)
- Complex correlations cannot presented transparently
- A consistent use of several different labels causes a feeling of uncertainty by the customers.

Condensed information content within a certain label on building materials is therefore inevitable and leads towards the following strategy:

- Vision: Increasing the building quality in order to improve the health of inhabitants, the environmental potential, the building construction (exploitation of raw materials, building material production, construction), the maintenance of a building (cleaning, maintenance, service and demolition), as well as reducing building costs (economic efficiency).
- Building quality can be defined and assessed by certain parameters according to the required comfort standard of the building.
- Task: To guarantee a certain building material quality so the environmentally conscious people get healthy homes.
- Healthy homes create a healthy environment for its inhabitants. This means paying attention to geo-biological radiations, ecological building materials, orientation to sun and wind, building shape, colors and so on in order to guarantee a high living quality.

- The assessment of environmental quality lies in the built environmental surroundings of a building (topography, landscape, greenings of walls, roofs, veranda, biotope interconnections on roadsides, etc.). Environmental quality is shown by mostly undisturbed natural cycles.
- Objective: Spreading the knowledge about ecological building materials with its environmental potential, which is connected with the building process and the occupants of buildings.
- Ecological building materials fulfill the following prerequisites: Environmentally friendly exploitation, extensive disclaim of pollutants during production processes, no irreversible transformation processes, simple or no maintenance, recycling properties, extensive use of renewable energy resources, local production, no health hazards to inhabitants.
- Target: Establishment of an Indonesian eco-label by creating the necessary standards in order to guarantee high quality building materials.
- An eco-label pasted on certain building materials on the market claims that this product extensively disclaim of solvents and pollutants during production process and does not pollute the environment. This label pushes its way to the surface, answering people's needs towards environmentally friendly building materials, which also do not affect their health.

Future eco-labels with increased information content (as developed by Bosco Büeler and Heinz Frick, Swiss Institute for Building Biology and Ecology in 1992) should not bear more than six qualifications in order to be cached at one glance by the customers. For a better clearness, these six qualifications are grouped in pairs, i.e.:

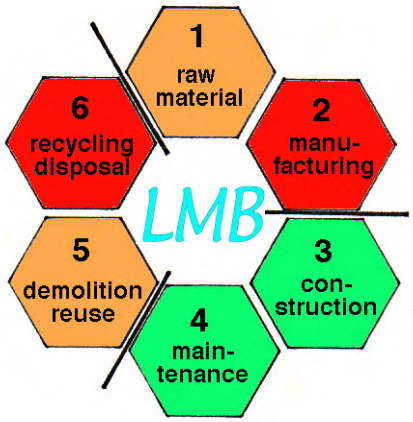

Figure 1: eco-label with increased information content (coloured just as an example)

- Raw material and manufacturing (exploitation of raw materials, resources, and building material production processes)
- Construction and maintenance (building process, assembling, utilization, maintenance, cleaning, service and conversions)
- Demolition and disposal (to build back, demolition, wrecking, reusing, recycling, and disposal of debris)

These six qualifications carry the future eco-label. Each one bears a certain information color, such as:

- green (low environmental impact, recommendable)
- orange (medium environmental impact, limited recommendable)
- red (high environmental impact, not recommendable)

The allotment of the information color is determined by six assessment criteria for each information carrier as follows:

1 raw material	**3 construction**	**5 démolition, re-use**
exploitation, cultivation	building up, erection	life span, reuse
primary energy input	fitting, assembling	demolition (work, equipment)
impact on landscape	transport, packing	means of transportation, distance
air pollution	air pollution	air pollution
water pollution	water pollution	water pollution
soil contamination	soil contamination	soil contamination
2 manufacturing	**4 maintenance**	**6 recycling, disposal**
production, processing	utilization	disposal
means of transportation, distance	maintenance	recycling possibilities
storage	service, conservation	incineration
air pollution	air pollution	air pollution
water pollution	water pollution	water pollution
soil contamination	soil contamination	soil contamination

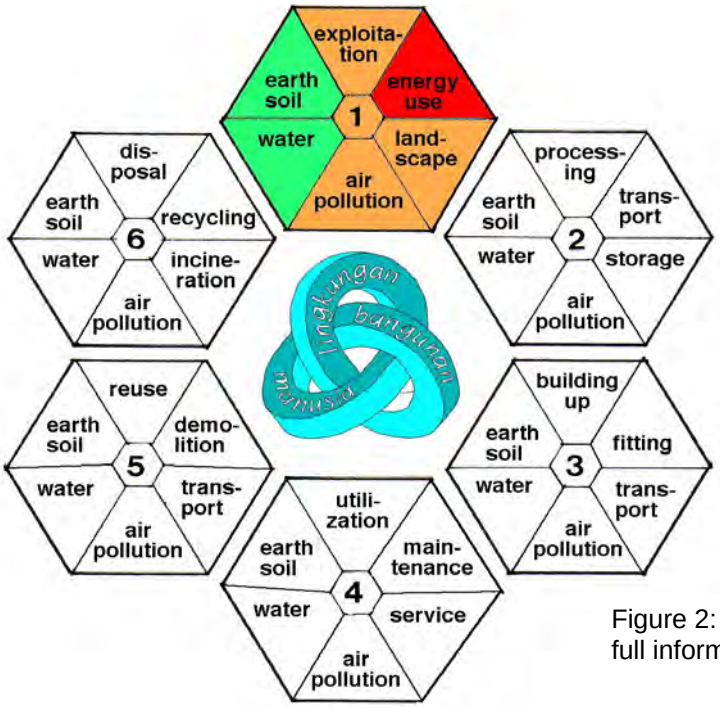

Figure 2: eco-label with increased information content, full information cycle (coloured just as an example)

In order to assess the full information cycle (Figure 2) it is indispensable to have a competent and independent building material research center at hand as well as a complete data bank in cooperation with the involved production industry. The Indonesian building

material research center could for example be placed at an existing building material research center at a university.
Without an eco-label with increased information content, it will be very difficult to get the necessary environmental information to the customers, and the booming building industry will destroy the remaining landscapes forever.

Heinz Frick

The Seal of Eco-label: What for?

The issues of environment are continuing to gain in economic and political importance worldwide. The emergence of environmental improvement awareness is a process of human learning “vis a vis” to the ecosystem.

Eco-label is one of the most innovative product seals of environmental approval, awarded by public or private organizations, to lessen the environmental impacts on human consumption. These organizations play a role as labelers, create standards for given product category that specifies production practices, and product specifications that are less damaging to the environment.

Producers who apply for a label and meet the standards are awarded by a license for its use on their product. The label itself provides consumers with information about a product’s environmental impact as a signal or attribute of less impact from production and use. Although eco-label is a voluntary instrument, the producers can command a higher market price as an incentive of their commitment. The incentive to participate in the certification is the market expansion in developed countries as well as developing countries. The consumers even are willing to buy products with eco-label seal 10 to 20% more expensive than regular goods (Aryanto, 1997).

Criteria

The eco-label can apply to both goods and services but not food, drink or pharmaceuticals products. The following coverage of eco-label is:

1. Products of washing machines, dishwashers, refrigerators, light bulbs and vacuum cleaners
2. Products of televisions, personal computers, laptops
3. Tissue paper products, copying and graphic paper
4. Textiles, footwear, mattresses
5. Laundry detergents, dishwasher detergents, all-purpose cleaners and cleaners for sanitary facilities, hand dishwashing detergents
6. Hard floor coverings, indoor paints and varnishes
7. Soil improvers and growing media
8. Lubricants
9. Tourist accommodation and camping sites
10. Other product group currently being developed includes printed-paper, soap & shampoos and work on furniture; the latter is not progressing at present

Since the eco-label comes from European countries, therefore, European Commission is responsible for establishing and revising the criteria for a specific product group by giving a mandate to a board composed by competent bodies and a consultation forum, consisting of all relevant interested parties such as non-governmental stakeholders-trade associations, and consumer bodies. The official Indonesia’s representative of eco-label is Indonesian Eco-Labelling Foundation (Lembaga Ekolabel Indonesia / LEI).

LEI appoints some credible and independent parties to grant ecolabel seal after being scrutinized e.g., SGS (Societe Generale de Surveillance), International Certification Services Indonesia, a Swiss joint venture, PT Superintending Company of Indonesia (Sucofindo), and PT. Mutuagung Lestari. These parties will assess the suitability of the product group to the eco-label criteria. Market data, surveys, stakeholder consultation and assessment of performance standards are all undertaken at this stage. If a decision is taken to proceed, then a life cycle considerations (LCA) will be undertaken.

Life Cycle Assessment (LCA).

Basically, LCA (Life Cycle Assessment) is a "cradle of the grave" approach of the scheme is fundamental to its objectives, identifying when the most harmful impacts to the environment occur, from the extraction of raw materials right through to product use and disposal. Areas of impact accounted for are: use of natural resources and energy, emissions to air, water and soil, production processes, disposal of waste, recycling and re-use, noise pollution and effects on ecosystems. The grant seal of label is usually valid for five years.

Implementation in Indonesia

The International Tropical Timber Organization (ITTO) has stipulated a compulsory seal of Eco-label certification to gain access to markets in some countries. This scheme considers that the practice of illegal logging is rampant. The rapid degradation of rainforest occurs in concession areas. The United States buys on average some 900,000 cubic meters of hardwood and plywood from Indonesia each year; it is the second largest market for Indonesian plywood after Japan.

The grant of eco-label is not given to the big companies but to the two groups of community-based forest in Wonogiri in March 3rd 2005. These groups are the villagers of teak forest management with the support of WWF to apply for the eco-label certification. After being recognized to meet the practice of certain ecological, economic and social aspects of management standards, a seal of eco-label was granted to them.

Wonogiri in Central Java has long been known, because of its dry, barren areas that recurrently experience clean water shortages during dry season. That was also the case in two neighbouring villages of Sumberejo and Seloputro. However, the community participation to reforest their barren land with teak, eucalyptus, acacia and clove trees was able to mitigate the situation. Even now they enjoy the eco-label seal certification that actually is the representation of international good practices of sustainable community reforestation. The grant of eco-label to community villagers is very good amidst the public notion that eco-label is unaffordable for small and medium enterprises or community of villagers.

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Eco-label in Indonesia

Understanding of eco-labels
An eco-label is a label, a symbol or a picture, which is officially applied to products or to the technical handbook, manual, publication or advertisement. It contains accurate information which is verifiable and do not confuse the consumer about environmental aspects from a product or a service.

Aim and benefit of eco-labels
The aim of an eco-label is to strengthen the demand and sale of environmental friendly products on the market as well as to strengthen a sustainable development of our environment. An eco-label gives the customers information about the environmental effects of the product.
The use of an eco-label is to motivate the consumer to chose environmental friendly produced products. It should increase the awareness and the consciousness of the consumers during their shopping which should not only been formed because of the price. An eco-label should further motivate the industry towards environmental friendly innovation.

Eco-label principles
Products can be eco-labelled if their negative impact to the environment is smaller compared to other brands. A whole life cycle of a product has to be considered for a comparison: Beginning with gaining raw materials, continuing with their production process, distribution, and use until their ending up as waste is considered.

Different eco-label types
Generally, there exist three different types of eco-label, which are:

Type 1: voluntary, multiple criteria based practitioner programs.
This type is commonly used in the whole world. The multiple criteria of the eco-label focus on the environmental effects of the products during their life cycle. The evaluation and the decision of giving the label are made from an independent side, and the joining is voluntarily.
Different stages of type 1 eco-labels are: choosing categories of products and services; developing and defining criteria; developing the mechanism and the way to the certificate, defining the tests, verification, evaluation and the handover of the label.

Type 2: self-declaration, environmental claims.
This claim is done by the producers. A symbol or label is used and given to the product or information sheet for example in form of "recycle", "recycled material", "biodegradable" or "CFC-free".
The prerequisites of this type 2 label include an evaluation methodology, which is clear, transparent, scientific and documented as well as a satisfying verification.

Type 3: quantified product information label
This type is multiple criteria based. The information is detailed and the values of each criterion are given quantitative. The evaluation is based on studies about the life cycle of the products, so the consumer can clearly compare the environmental effects of different brands and therefore he can choose a product, which fits best to his personal most important criteria.

Development of an Indonesian eco-label

There are two means in the developing process of an Indonesian eco-label. The first is to strengthen a sustainable development in Indonesia and the second is to increase the competition capacity of Indonesian products on the global market.
In 1994, a governmental office was formed to develop an Indonesian eco-label, which currently coordinates different institutions and industries. It holds seminars and workshops, does literature studies and comparisons, defines criteria for several prioritized products and plans the introduction of the Indonesian eco-label, which should meet national as well as international needs and standards.
In 2002, several criteria were formulated for packing paper, tissues, textiles, leather, shoes and so on. The governmental office works together with different stakeholders and a manual for the application of the Indonesian eco-label has been proposed. A technical manual for the industry and the evaluators of the eco-label is in progress.
The type 2 eco-label is available in form of a proposal for a pilot project with the ISO 14021 and the law UU No. 8/1999 about consumer protection as a base. Other projects are working on simple tools for the examiners or evaluation and verification of the needed information of foreign countries of the Indonesian eco-labeled products.
So far, there is no official Indonesian eco-label existing.

Djoko Suwarno and Petra Widmer

Reports

Geomancy Meets Building Biology

ECOHB was the patron of the international congress for the future markets of wellness, health, and harmonious dwelling “Geomantie meets Baubiologie” from 10 to 12 June 2005 in the monastery on the Fraueninsel in the Chiemsee in Bayern, Germany. The congress was organised by ‚AnBus e.V. Gesellschaft fuer Gebaeudediagnostik, Umweltanalytik und Umweltkommunikation’ and ‚axis mundi AKADEMIE, Europaeische Akademie fuer Geomantie & Lebensraumkultur’.
Amongst others there where the themes of geomancy, radiesthesy, feng shui, psychology of space, energy of space, harmonics, vital life, successful work, new culture of gestaltung for life space, and a geomantic excursion on the program.
More than 150 participants listened to 20 invited guest speakers and watched their richly illustrated presentations as well as the offers in the accompanying show room. Here one could find many books and offers for courses both on objectives related to the congress. There were also apparatus exposed for the reduction or elimination of various types of disturbing natural and especially artificial-technical fields. In a ‘night of discussion’ it was particularly tried to explore the differences and similarities between the two disciplines of the congress objectives with people from Austria, Belgium, Germany, Hungary, Switzerland, The Netherlands and USA.
Because of the fruitful exchange of thoughts on a number of objectives, which need much more attention than they get yet generally, it was decided to continue with similar themes next year.
For further information about the congress there will be a film about the whole meeting available soon:... mail@axis-mundi.info
AnBus and axis mundi both received THE ECOHB AWARD for their substantial contribution to Sustainable Building as well as for the successful cooperation, and VDB, Bundesverband Deutscher Baubiologen, ECOHB partner and ECOHB sponsor, and particularly Mr. Uwe Muenzenberg received THE ECOHB AWARD for the above mentioned issues, but also for the information-technological assistance.

ED./ PS

Gaia Workshop in Scotland
A Sustainable Vision for Cumernauld

Cumbernauld in Scotland, about some people say it is the ugliest town in GB, was the place for the Gaia Group Summit Cumbernauld Lanarkshire, a Sustainable 2020 Vision for North Lanark. From Wednesday 8th to Friday 10th of June 2005 one could experience an intensive atmosphere there. Between and within the area of North Lankshire, the town and the old village of Cumbernauld, Cumbernauld Town Centre, the Westerwood Hotel, the council hall of the Cumbernauld town hall and some rooms in a sport accommodation of the town we explored the character of the environment and we underwent a very exiting and inspiring workshop, done according MHP, the Method Holistic Participation.
Representatives from the informal established Gaia International Group, coming from Austria, Hungary, Finland, Norway, Scotland, South Africa and the Netherlands mixed themselves under some twenty officials of the municipality, mainly working and/or responsible for housing, town planning, urban renewal and refurbishment, public service and traffic, infrastructure, landscaping, etc.
The MHP workshop was structured in three scale items, in which, after consultation, the Housing in building scale – Public Service in Neighbourhood scale – Infrastructure in town scale were integrated.
The two aspects of Management on the one hand and Concept on the other hand gave another principle of ordering to the complex task.
Some of the Gaia members gave various introductions to the problems and practical possible solutions of sustainable building design, town planning, and the realization.
It was again surprising what was possible to happen, in such a short time. The result, already on the morning of the third day, after a start with a bus trip only in the afternoon of the first day, was a package of illustrated guidelines for a sustainable improvement of the town of Cumbernauld, particularly for steps to be taken within one first year. Those steps of course where suggested with an eye on the planning for middle long and long term as well.
Professor Sandy Halliday from Gaia Research Edinburgh and director Phil Gaunt, Strategic Planning Manager from the Municipality of Cumbernauld, who also hosted the workshop, were the coordinators of the whole happening. Drew Mackie facilitated the Method Holistic Participation. The results, reached in between the rotating phases of the workshop were collected and electronically stored by Gabriella Pal.
We do hope that the successful result of the workshop will get its adequate reflection in the future planning for and reality of the town of Cumbernauld and its surroundings in North Lanark and Lanarkshire.

ED./PS

BOOK REVIEW

Michiel Haas
TWIN-model,
Milieu Classificatie-model Bouw

The TWIN-model
An assessment-model in building, based on sustainable aspects

Zusammenfassung: Das TWIN-Modell,
ein Beurteilungsmodell fuer das Bauwesen auf der Grundlage von Nachhaltigkeits-Aspekten
Samenvatting: Het TWIN-model,
een beoordeligsmodel voor de bouw op basis van duurzaamheidsaspecten

Resume synthetique: Le modele TWIN,
Un modele d'evaluation pour le batiment fonde sur les aspects de durabilite
Breve compendio: Il modello TWIN,
Un modello di valutazione per l'industria edilizia sulla base di aspetti di durevolezza
Doctorate Thesis at the Eindhoven Universtity of Technology,
NIBE, 1997,
ISBN 90-74510-04-3
1st supervisor: prof.mag.arch.ing. Peter Schmid, TUEindhoven
2nd supervisor: prof.ir. Kees Duivestein, TUDelft

Ferdinand Beetstra
HET ECOLEMMA MODEL,
ECOLogische Eenheden **M**ilieu-**M**onetair gewogen voor Antasting van ecosystemen en landschappen door de bouw

THE ECOLEMMA MODEL,
Social costs in construction, a monetary evaluation of deterioration

Zusammenfassung: DAS EKOLEMMA MDELL,
Gesellschaftliche Folgekosten im Bauwesen, eine monetaere Bewertung de Antastung
Doctorate Thesis at the Eindhoven Universtity of Technology, tue,
BOUWSTENEN 50/1998,
ISBN 90-6814-550-9
1st supervisor: prof.mag.arch.ing. P. Schmid,
2nd supervisor: prof.ir. G. J. Maas

Hans Loefflad
Das globalrecyclingfaehige Haus,
Fallstudie ueber die Moeglichkeiten der Wiedereingliederung von Baurueckstaenden in den Naturkreislauf am Beispiel eines globalrecyclingfaehigen Hauses mit Klassifizierung von Baustoffen und Planerkatalog sowie Oeko- und Energiebilanz

The recyclable house

Samenvatting: Het recyceerbare huis
Resume: La maison entierement recyclable
Resumir: La casa globalemente reciclable
Compendio: La casa globalmente riciclabile
Oeszefoglalas: A termeszeti koerforgasba visszaillesztheto haz
…: Rumah yang dapat didaur ulang secara keseluruhan
Doctorate Thesis at the Eindhoven University of Technology, TU'e,
bouwstenen 66/2002,
ISBN90-386-1536-1
1st supervisor: em.prof.mag.arch.ing. P. Schmid,
2nd supervisor: prof.dr. M. Kennedy

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Nov 2/4 05: Designing Value: New Directions in Architectural Management, Special Meeting (CIB W096)Denmark, Technical University of Denmark, Lyngby
Info: prof. Stephen Emmitt, se@byg.dtu.dk

Apr 3/5 2006: INTA, 2nd International Conference on Sustainable Architecture and Urban Design in Tropical Region
Duta Wacana Christian University, Yogyakarta, Indonesia,
Info: dr. Henry Feriadi henry@ukdw.ac.id http://www.inta2006.org

Apr 25 2006: Science Technology and Peace – Conversion
The Netherlands, Eindhoven University of Technology TU/e, Peace Centre
Info: vredescentrum@tue.nl T 0031 (0)40 2474546

28 April 2006: Meeting Building Biology
Italy, Silandro/Schlanders, BZ/Sued-Tirol
Info: arch. Siegfried Camana, ANAB, Via Fornico 8, I-25084 Gargnano,
Info: csea@iol.it T 0039 (0) 3651009

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