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**Submission of TUAC to the UNEP Industry Sector Reports:
Construction, including Cement**

CAVEAT

The following report is based on information obtainable by the author during the course of research and writing. Attempts have been made to obtain input from appropriate labour groups. However, it is important to note that there may be relevant policy documents and points of view not represented here. This document is subject to change as additional input may be forthcoming. Please ensure that you are reading the most recent version. Therefore this report should be considered an introduction to trade union thinking on these issues rather than a final or complete position.

INTRODUCTION

The Trade Union Advisory Committee (TUAC) to the Organisation for Economic Cooperation and Development (OECD) along with the International Confederation of Free Trade Unions (ICFTU) welcome this opportunity to provide our response to the Industry Sector Reports being prepared by international industry associations under the auspices of the United Nations Environment Program (UNEP); Division of Technology, Industry, and Economics.

When seeking information on the sustainability of any industry, it is important to remember that the input from industry management and industry associations is only one-half of the story - the owners' part. Workers, through the unions which represent them, are able to complete the picture.

Business hopes to ensure that its positive contributions to sustainability are appropriately recognized. Trade unions, as part of both "industry" and civil society, acknowledge that in many cases, industries and sectors have made important progress in the areas of technology development and technology transfer, environmental management systems and tools, and voluntary initiatives.

However, there are many unfulfilled past promises, and complex future challenges for industry. These are neither uniform between industry sectors, between nations, nor even within single nations and industry sectors.

CONSTRUCTION

The following is excerpted from the International Federation of Building and Wood Workers (IFBWW) document:

**“Towards Sustainable Industrial Development
in Construction, Wood and Forestry”**

(Draft of December 17, 2001)

1. Sustainable development - a trade union perspective

Policies on sustainable development interlock with core union areas: the development of business and industry, employment and working conditions as well as health and

safety. Union involvement in these discussions is vital, both at the political and strategic level, as well as at the practical, operational level. The IFBWW sectors will be enormously affected, which is why it is important for the IFBWW to raise its voice on the issue.

- Globally, the last ten years have seen a decline in both the area and the quality of the world's forests. Unsustainable management of forests has gone hand-in-hand with the denial of rights or voice to workers or their communities. Discussions on sustainable management of the world's forests must integrate environmental, economic, and social aspects. Successful models in the industry already exist to show that better practices, such as low-impact logging, effective public participation, participatory decision-making, and integrated planning can lead to win-win solutions. Forest certification, for example, is promoted by trade unions because it employs market-based strategies to promote sustainable forest management, which protects workers jobs at the same time, as it protects a key element of our natural environment.
- The Timber and Wood Workers Union (TWU) in Ghana has established a tree nursery and plantation which has become a showplace for good forest practices, and a focus for effective training in sustainable practices. These include reforestation, occupational health & safety, and forest certification. A gender awareness program based on local level needs identified by research has worked to establish women's structures and to improve the condition of women in the workforce. The TWU is now sharing its experience with other unions, and has exchanged with unions in Burkina Faso and Kenya, where similar forest and training efforts are now underway.
- German union IG BAU is collaborating with government and employers' federations in a programme to renovate buildings, contributing to climate protection measures, whilst creating sustainable jobs. The *Alliance for Work and Environment* aims to renovate 300,000 apartments, create 200,000 jobs, reduce CO2 emissions and lower heating bills for tenants, landlords, and the State by about US\$4 billion, through reduction of unemployment costs and increased income taxes etc. The immediate objective is to improve insulation of buildings, advanced heating technologies, and use of renewable energy - like photovoltaic or solar thermal systems. Thousands of new jobs are anticipated in the construction, heating, sanitary and air-conditioning sectors, as well as in building service. Financing for the programme is provided by the German government, which will spend less than US\$1 billion in the next 5 years. As well, a total of US\$5 billion will be available through credits at favourable rates of interest.
- Over 100,000 workers currently die world-wide each year as a result of exposure to asbestos, and fatality rates are expected to continue to rise, especially in developing countries where asbestos is being increasingly and more aggressively marketed. Trade unions were therefore quick to follow-up on a ruling by the World Trade Organisation in 2000 against Canada's appeal of a ban of asbestos by France. The WTO decision paves the way for more countries to support a world-wide ban on this product that was spearheaded by the IFBWW and the ICFTU Executive Board, effective December 2000. Trade

unions representing workers, who produce asbestos, building workers exposed to asbestos products, and their communities expect governments and employers to provide asbestos workers with a "Just Transition". Governments and employers have a responsibility to all workers in the asbestos industries to ensure that they do not have to trade their health for their jobs, and asbestos workers should therefore be entitled to a Just Transition to new, safer and decent employment.

These examples illustrate that there are several areas of common interests between the stakeholders in the construction, wood and forestry industries, which can create a framework for sustainable industrial development and a win-win situation for the industries:

- Productivity of the industries can be raised by better trained workers and work organisation and health and safety training;
- Efficiency and productivity of small scale and big companies can be improved in order to achieve a stable employment situation and permanent employment relationships;
- A regulated construction and labour market can prevent unfair competition and social dumping;
- Social dialogue on all levels with social partners, which are well organized and representative, lives up to the right for workers to organize and to collective bargaining.
- Use of energy efficient materials and responsible use of chemicals, including waste disposal, benefit workers and society as a whole.

Vital components of the concept of sustainable industrial development are that the three pillars of sustainability - economic viability, ecological protection and social responsibility and participation of workers and their unions in decision making are respected. The IFBWW's vision is that the realisation of the initiatives that we call "sustainable working life" is regarded as a decisive step towards sustainable industrial development. "Sustainable working life" entails decent pay and working conditions, a meaningful job with prospects, a good working environment, continuous human resource development and secure employment.

- The IFBWW wants to ensure that the governments, companies and development agencies work to promote sustainable industrial development at enterprise, national, regional and global level.
- The IFBWW believes that a pre-requisite for the promotion of sustainable development generally and at industrial and company level is the involvement of union representatives.
- The IFBWW encourages the international trade union movement to prioritise the concept of sustainable industrial development in their future work.

2. What is sustainable development?

The simplest definition of sustainable development states that we must meet the "needs" of today's generation without sacrificing the ability of future generations to meet their needs. This simple definition becomes more complex upon examination of the word "needs". "Needs" does not just mean environmental or economic concerns,

which is a common misinterpretation, but includes environmental, economic, and social concerns.

The concept of "sustainable development" has proven to be difficult for many people to fully understand. Perhaps that is because it requires integrative rather than compartmentalized thinking, and is not well adapted to explanation in five-second media "sound bites". Environmental, economic and social concerns must be addressed simultaneously. Very simply: if we fail to protect the environment we will have no jobs, no communities, and no future; but if we attempt to impose environmental solutions that ignore economic and social realities, we will face disaster of a different sort.

The necessary foundation of a socially sustainable workplace is respect for the dignity and human rights of workers. The minimum criteria for that dignity and respect for human rights are articulated in the ILO's (International Labour Organisation) Core Labour Standards (sometimes referred to as Fundamental ILO Conventions.)

There are eight ILO Conventions that have been identified by the International Labour Organisation as being fundamental to the rights of working people. They are intended to apply to all workers, whether the country of work is a developed nation or a developing one. All other workplace rights are considered to build upon these fundamental rights, in that they provide the tools of the conditions necessary for workers to strive to improve their individual and collective working conditions.

Freedom of association

1. Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)

2. Right to Organise and Collective Bargaining Convention, 1949 (No. 98)

The abolition of forced labour

3. Forced Labour Convention, 1930 (No. 29)

4. Abolition of Forced Labour Convention, 1957 (No. 105)

Equality

5. Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

6. Equal Remuneration Convention, 1951 (No. 100)

The elimination of child labour

7. Minimum Age Convention, 1973 (No. 138)

8. Worst Forms of Child Labour Convention, 1999 (No. 182)

All of these should be very nearly self-explanatory; however complete text and detailed explanations are available from the ILO <http://www.ilo.org> if desired.

Often it has been the case that the ecological and economic dimensions have overshadowed the social dimension. This is something that the IFBWW strongly objects to. The social dimension is of particular importance for a trade union organisation, since employment, working conditions and the working health and safety environment form a large part of this dimension. Sustainable development is not only a matter of economics and the environment, but it is also about *people*.

The aspiration towards economic growth or a clean environment must not be allowed to overshadow the fact that it is actually *people* who create this growth in value and keep society going with their work. Progress must not be at the expense of the workers. Exploiting or repressing fundamental workers' rights, strain and accidents at work must be prevented and avoided, if it really is a question of real sustainable development.

The IFBWW believes that a sustainable working life is a pre-condition if it really is going to be a matter of sustainable development. Labour is not just a good that can be consumed, as you think best. Pay and working conditions must be good enough for workers to last a whole life. Also after a full working life, it should be possible to have a good life.

What is a sustainable working life?

A sustainable working life is characterized by:

- *Stable employment and permanent employment relationship*
- *Fair pay and decent working conditions*
- *Appropriate social insurance*
- *A meaningful job with prospects*
- *A good working environment, so that the labour force maintains its health during an entire working life*
- *Continuous human resource development, so that the labour force maintains its value on the labour market*
- *Co-determination and democracy*
- *Solidarity with colleagues*
- *The possibility of working even after your working ability has been reduced*
- *No discrimination against women at workplaces*
- *No child labour and any form of forced labour in our sectors*
- *All workers are free to choose their employment and work under conditions where they are free to leave when they choose*

One "problem" with the social dimension and a sustainable working life is that the factors cannot be immediately quantified in terms of money however be used for benchmarking. Inadequate rights, stress, exclusion from the labour market and accidents at work are not always measurable. However these conditions have an enormous impact on the individual worker, companies and society.

3. Sustainable development in IFBWW industries

In the building, building materials, wood and forestry and allied sectors there are already today good prospects for a transformation towards sustainable development. The IFBWW sectors can quite easily be transformed to become more sustainable and the IFBWW would like to stimulate this transformation.

3.1. The building and construction sector

The building and housing sector is responsible for 30 - 40% of the total energy consumption of society (90% contributes to the running of buildings), about 40% of

material use and a large proportion of total waste. It is interesting to discuss sustainable development in construction against the background of the use of resources.

The building sector is enormously important for the economy, employment and the environment. The construction industry globally represents a \$ 3,5 trillion market volume and a workforce of around a 100 million. Construction creates employment, protects the environment, facilitates modern means of transport and also improves the living conditions of mankind. Infrastructure and building improve health, education, employment and the economy as a whole.

"Production in the construction sector differs from other industries." This is a view often heard in the construction sector and there is great deal of truth in that statement. In other industries there is a far greater dynamism compared to the construction sector and technological progress is moving much faster in many other sectors. The reason for this is that, as a result of the market and international competition, there is a constant pressure for change, a tendency less pronounced in the construction sector.

The construction sector also differs from other business sectors on the production side. Buildings increase in value regardless of how badly they are maintained. The constant increase in value has to do with the character of the product. A building is not a disposable product; instead it is a product that is expected to "last" for many years. With the right maintenance and renovation, a building can age with dignity and can be constantly adapted to changes as regards function and use. Due to this longevity of the finished product, it is important that a number of considerations are made before a construction project is launched.

The IFBWW would like to emphasise that the whole *lifecycle of a building* must be thought through before the start of the building process: from conceptual development and realisation, to management and maintenance and lastly the demolition of the building. The building work cannot only be valued based on the price of the construction. The architecture, quality, lifetime, multipurpose, ecology and working environment on the building site are important factors that should be taken into account. A public building policy should contribute to the promotion of a holistic approach in construction where every stage of construction is taken into account in the decision-making process.

As shown in the illustration "*life-cycle of construction*", the link between the economic, environmental and social conditions is very close in construction. The three dimensions are interdependent and what happens in one of the dimensions has repercussions on the other two. It is essential to think through all three dimensions and the link between them before planning a construction project. When it comes to the actual construction work and the running of the building, creation of a positive and dynamic interplay between the three dimensions ensures sustainable economic, ecological and social development.

A further requirement as regards buildings and housing is the demand for *quality*. Buildings and construction activities must be "sustainable" in different respects. That does not only mean sustainable in the physical sense, but also in the economic, ecological and social sense. Actually the construction sector can play a very strategic

role in various national strategies of recent years for the creation of a "sustainable society".

The IFBWW believes that it is high time that the social dimension is put on the agenda. The social dimension is above all about pay and employment conditions for people who work in construction. It is also important to ensuring a good working environment, participatory decision-making and further training and from a broader perspective safeguarding the idea of a home and employment for all.

From an economic point of view the inclusion of the social dimension will not make construction more expensive. As already mentioned, the conditions in the three dimensions have an impact on each other. For example, a good working environment reduces the risk of heavy, straining work, leads to fewer accidents at work, fewer sick days, and thus shorter construction times and lower costs for the total construction. Improved energy consumption and the use of quality materials are important for the indoor climate in the finished home and for the pleasure of living in the building. At the same time, improved energy consumption reduces the total operational costs for the homes.

Building materials

The cement industry has several key issues to address, in terms of environmental sustainability:

- *Energy use*
- *Carbon dioxide emissions in the manufacture of cement*
- *Incorporation of recycled materials*
- *Waste produced in the manufacturing cycle*
- *Condition of abandoned quarries, and remediation*
- *The impact of choice of material on such factors as traffic noise, dust, energy efficiency of buildings, etc.*

The manufacture of cement from mineral feedstock requires a huge energy input. Most of that energy, worldwide, is presently supplied by coal; the burning of which releases large amounts of carbon dioxide along with other pollutants such as nitrous oxides, sulphur oxides, and particulate. However, the manufacture of cement has an additional environmental burden to account for, besides the energy input. The chemical reactions involved in converting limestone to cement release very significant amounts of carbon dioxide, as well.

Globally, combining carbon dioxide - emitting energy input (even recognising that all potential energy sources for a cement kiln are not equal in this regard), with the carbon dioxide produced via the chemical reaction, means that over one ton of carbon monoxide is released to the atmosphere for every ton of cement produced. This is very significant, even as a percentage of total anthropogenic carbon dioxide releases to atmosphere. It has been estimated that the cement industry may be responsible for 8 percent of this total.

The cement industry can do much to improve this record. Increased energy efficiency, alternative fuels, and incorporation of greater quantities of waste materials, e.g. fly ash, in the final product all have the effect of significantly reducing the overall

environmental "footprint" of this important industry. Other wastes and emissions must be controlled, as well.

Another significant environmental "charge" that has been levelled against the cement and concrete industries is the condition and fate of quarries, where limestone, gravel, sand, and other raw materials are obtained. The record of the industry in managing the environmental impacts of these sites, and remediating them when their economic life is over, has been less than completely responsible.

Finally, the cement and concrete sectors need to examine the positive environmental impacts that the choice of materials can have on such factors as energy efficiency of buildings, indoor air quality, traffic noise, dust generation, etc. The cement sector has begun to recognise that the environmental impact of a product has marketing value. However, the sector has generally failed to understand that social sustainability is as important as environmental sustainability.

In total, the cement industry is huge. A large quantity of global cement requirements is supplied by small, locally owned plants. Because it is heavy and bulky, cement is not traded in large quantities on the global market, and most cement is used relatively close to the location in which it is manufactured. However, a few large multinational corporations have been able to gain control of overall pricing and market access by controlling strategic positions in national and local markets. This process has continued in both developed and developing countries, and in the transition economies. The social impacts of that pricing and market control, and of the privatization of former state-controlled cement facilities have been largely ignored. The cement industry, like many other economic sectors, is contemplating or has adopted voluntary initiatives. As a tool to build consensus and forge professional codes of ethics for the behaviour of those working within the industry, this is all to the good. However, voluntary initiatives can only be credible with an effective means of independent, third-party verification of performance, and can never entirely replace regulatory action.

Initiatives for the promotion of sustainable development in the construction and building materials sector:

- *Ensuring comprehensive training and further training*
- *Securing adequate occupational safety and health, and accident prevention.*
- *Employment in permanent and secure jobs*
- *Ensuring the right to form trade unions (freedom of association) and to collective bargaining as laid down in the Conventions No. 87 and 98 of the International Labour Organisation*
- *Focusing on quality in building (both product as well as process)*
- *Regarding construction from the holistic perspective that includes all the stages of the life span of a building (planning, building, operation, renovation, demolition, re-use, waste), for example making complete economic calculations in order to make a "from the cradle to the grave" assessment*
- *Drawing up key figures and systems for benchmarking in order to be better able to compare different types of construction work*

- *Carrying out lifecycle analyses to assess the total environmental impact of the construction work, including the impact on the working environment*
- *Motivating the increased use of environmentally correct projects, environmental labelling of building products, green accounting practices, working environment accounting practices as well as planning human resource development*
- *Formulating state building and housing policy programmes and establishing goals and control instruments. In a public building policy, demands can be put on the building process itself. At the same time, the state as client acts as a good example and shows the way for other clients*
- *Providing the legal and financial framework for investments which lead to employment through housing programmes appropriate to the needs of all people, as well as social and cultural infrastructure, urban renewal, and infrastructure projects in line with environmentally and socially sound practices.*
- *Implementing measures for the controlled use, and eventual phasing out of dangerous substances such as asbestos*
- *Ensuring the maximum use of locally available natural resources, renewable building material, and local personnel as well as cost-effective technologies to the needs and characteristics of the country.*
- *Promoting investments and provide tax incentives for environmental friendly building activities including energy saving measures.*
- *Establishing funds for construction projects for use in time of recession.*
- *Ensuring minimum labour standards in the execution of public contracts by implementing ILO Convention No. 94 concerning Labour Clauses in Public Contracts.*
- *Ensuring that research programmes for construction industries, including social issues, are expanded.*
- *Complying with ILO Convention 169 concerning Consultation with Indigenous Peoples whose land is affected by construction projects, and compensation rights in the event of relocation.*
- *Influencing the UN, the WTO, World Bank and regional financial institutions, companies and governments place an importance on "sustainable working life" and show respect for environmental protection and land management in the planning and carrying out of construction projects.*