UN Recommended Product Service Systems

In order to achieve ecological sustainable development, as defined by the European Union and the United Nations, WTO members must first change industry production and individual consumption habits on both a national and global level. To assist in this process, the UN highly recommends that countries employ what environmentalists refer to as 'product-service systems'.

Environmentalists admit that product-service systems will require countries to undertake significant and fundamental macro- and micro-economic changes that will likely have serious social, economic and financial repercussions. In addition to redefining 'quality of life' preferences for millions of global consumers, these systems will severely curtail manufacturing, distribution and retailing activity around the world, and likely lead to mass unemployment and dislocation. Furthermore, the types of services industries anticipated to arise in their place will likely provide mostly lower skilled and lower paying work.

As the following excerpts reveal, the EU, UN and civil society mandarins of the new global governance movement value the environment more than they do humanity. This is true with respect to the poorest global citizens who reside within developing countries.

> "Our society is using more resources than the planet can sustainably supply…Recent studies indicate that a *sustainable society* in the future should use only about 10 percent of the resources that industrialized societies are using today (per capita). **A radical change is needed to move from the prevailing economic system of manufacturing goods and inducing customers to buy them towards one based on dematerialized consumption patterns**. Product service systems are one of the elements of such a system" (Italics in original, Boldfaced emphasis added)
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> "*The key idea behind product service systems is that consumers do not specifically demand products per se, but rather are seeking the utility these products and services provide. By using a service to meet some needs rather than a physical object, more needs can be met* with lower material and energy requirements. A product service system…includes product maintenance, parts recycling and eventual product replacement, which satisfy customer needs competitively and with lower environmental impact over the life cycle…The main difference between product service systems and the classic examples is that the preference of consumers is influenced by environmental, as well as, economic interests."

"The Role of Product Service Systems in a Sustainable Society, United Nations Environment Program, Division of Technology, Industry and Economics, at p. 2.

> "…[M]any schools of thought hold that for a *sustainable society*, we need to move towards a point where we are reliant on 10% of the resources that are consumed by industrialized countries today (per capita). To make this shift, radical changes are needed. **This means the transition has to occur also at a broad system level,** since the potential environmental improvement is greater.
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> Changes need to occur at the consumption level, by **moving the demand for products and services towards different, more dematerialized consumption patterns…The focus needs to be on not only products and services, but also <u>the way that consumer needs and wants are</u>**

defined **and/or fulfilled and the ways companies and other stakeholders define their roles and relationships.** Generally speaking *sustainable consumption* implies a departure from current accepted standards of living (and the economic patterns they are based on) that are directly linked to increased material and energy consumption" (Italics in original; Boldfaced emphasis added). The Product-Service System concept is…capable of helping [to] achieve the leap which is needed to move to a more sustainable society."

"Product-Service Systems and Sustainability – Opportunities for Sustainable Solutions, United Nations Environment Program, Division of Technology, Industry and Economics, Production and Consumption Branch (2001), at p. 3.

> "A Product-Service System can be defined as [a]…shifting [of] the business focus from designing and selling physical products only, to selling a system of products and services which are jointly capable of fulfilling specific client demands…The…essential differences between product selling systems (traditional product sales) and Product-Service Systems [can be] characteri[zed] as follows:]
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> [Rather than the]…[c]onsumer **buy**[**ing**] a washing machine to clean clothes in [a] house …[the] [c]onsumer **rents** a washing machine to clean [those] clothes in [a] house…[or] **buys a service** from a company (laundry) to clean clothes…
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> …[Rather than the] client [consumer] own[ing], us[ing] and stor[ing] a washing machine [and being] responsible for maintenance and the 'quality' of the cleaning...[the] [c]ompany owns, maintains and stores the cleaning equipment including [the] washing machine [and]…is responsible for [the] 'quality' of the cleaning [and the]…company determines [the] best equipment and methods…
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> …[Rather than the] [c]onsumer ultimately dispos[ing] of [the] washing machine and buy[ing] [a] replacement…[the] [c]ompany is responsible for disposal and has incentives to prolong [the] use of [the] product, reuse components and recycle materials" (emphasis added).

"Product-Service Systems and Sustainability – Opportunities for Sustainable Solutions, United Nations Environment Program, Division of Technology, Industry and Economics, Production and Consumption Branch (2001), at p. 5.

> "The example below further explains the essential differences between…selling a product…traditional products sales (selling tangible goods) vs. a function…(selling functionality):
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> [Rather than the] [c]onsumer **buy**[**ing**] a vacuum cleaner to clean [the] house [or] office…[the] [c]onsumer **rents** a vacuum cleaner to clean [the] house [or] office [or]...**buys a service** from a company to clean [the] house [or] office…
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> …[Rather than] [t]he consumer [own[ing], us[ing] and stor[ing] [the] vacuum cleaner [and being]…responsible for the maintenance and 'quality' of the cleaning……[the] [c]ompany owns, maintains and stores the cleaning equipment including the vacuum cleaner [and]…is responsible for the 'quality' of the cleaning [and the]…[c]ompany determines [the] best equipment and methods…
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> ...[Rather than] [t]he consumer ultimately dispos[ing] of [the] vacuum cleaner and buy[ing] [a] replacement…[the] company [is] responsible for disposal and has incentives to prolong [the] use and recyclability of [the] cleaning equipment…"

"The Role of Product Service Systems in a Sustainable Society, United Nations Environment Program, Division of Technology, Industry and Economics, at p. 2.

"The PSS strategy offers a customized mix of services (**as a substitute for the purchase and use of products**)…The mix of services do[es] not require the client [consumer] to assume (full) responsibility for the acquisition of the product involved. Thus, the producer maintains the ownership of the products and is paid by the client [consumer] just for providing the agreed results…In this approach a company offers access to products, tools, opportunities or capabilities that enable clients [consumers] to get the results they want. **The client [consumer] obtains the desired utility, but does not own the product that provides it, and pays only for the time the product is actually used**. Depending on the contract agreement, the user could have the right to hold the product/s for a given period of time (several continuous uses) or just for one use. **Commercial structures for providing such services include leasing, pooling or sharing of certain goods for a specific use**.

This is a strategy, which has been applied to traditionally individually owned goods which are used for short periods of time, such as tool rentals, laundry services or car sharing…[In developing countries…[e]xamples are the agricultural **co-operatives** which purchase tractors and tools and other staff through a consortium, and book out their time to associates…**Car sharing** initiatives work in a similar way, providing **a fleet of vehicles** to be booked and paid for by members. Other examples are the so-called virtual offices…Other examples are seen in the field of **information technologies** where access is gained to shared **facilities…such as internet connections**. Finally, in the field of education and childhood, an example is given how **toys can be rented** for a given period" (Boldfaced emphasis added).

"Product-Service Systems and Sustainability – Opportunities for Sustainable Solutions, United Nations Environment Program, Division of Technology, Industry and Economics, Production and Consumption Branch (2001), at pp. 9-10.

"It has been said that not all shifts to PSS result in environmental benefits and/or economic advantages…Thus even when well designed, it has been observed that some PSS changes could generate unwanted side effects…[S]omething may happen that turns *potential* environmentally friendly solutions into *increases* in global consumption of environmental resources at the practical level. One example is the impact of PSS on consumer behavior. For example, outsourcing, rather than ownership of products, could lead to careless (less ecological) behaviors…[Or], [**a consumer may spend the time or money saved in an unsustainable way such as by <u>buying</u> other goods, thereby offsetting any environmental benefits**.]

…**The** main barrier to adopting PSS in developed countries is **the cultural shift necessary for the user to value 'having a need or want met in a sustainable way' as opposed to 'owning a product'**. **This cultural leap can be made, but is not straightforward for a consumer or intermediary retailer…to understand**. In a developing country, **the** main barrier may be the availability of advanced technological information and knowledge, to produce a socially and economically viable PSS" (Boldfaced emphasis added).

"Product-Service Systems and Sustainability – Opportunities for Sustainable Solutions, United Nations Environment Program, Division of Technology, Industry and Economics, Production and Consumption Branch (2001), at pp. 15-16.

"Product service systems require a coordinated approach by several groups of stakeholders. Industry, government and civil society…

…**Industry** is particularly well-positioned to take the lead and implement new strategies by using 'out of the box' thinking. It is constantly re-evaluating how best to meet consumer needs at the lowest cost and it **has increasing pressure to take into account the environmental impacts of its activities (from ISO 14000 standards, public scrutiny or governmental regulation**…).

…**Government**'s role is to set a policy framework conducive to change. Among other possibilities, it **can establish new laws, regulations and/or market-based incentives that encourage establishment of services. Examples could include higher sales taxation for products as opposed to services or mandating product take-back systems to promote recycling of products**. **Public procurement** can also be used to simulate the market for product service systems.

…**Individual consumers** can use their purchasing power to demand product service systems. They **can exert pressure on government and the private sector**…

…If employed on a global level, product service systems can lead to reduced resource use and waste generation *__since fewer products are manufactured__*. The increase in sales of services can offset initial reductions in tangible goods sold. **Employment lost in manufacturing** can be balanced by jobs created in services. As a business concept, product service systems have the potential to improve standards of living worldwide; however, **this change will require a cultural shift to new values** which focus on *quality* and *utility*. With product service systems, **consumers worldwide have less need to buy**, maintain, dispose of, **and eventually replace a product**.

…In developing countries…product service systems can facilitate the transition toward a more service-oriented, sustainable society…[and] may represent a more promising and environmentally sound path to economic development since **it enables them to bypass the development stage characterized by individual ownership of goods**.

…The bottom line. Product service systems can benefit the environment – but it requires a deliberate consumer choice to take this route. The vacuum cleaner, itself only one small element in a consumer society, demonstrates this clearly. Most families in western society will normally buy a vacuum cleaner. In traditional terms, this would be viewed as having a positive effect on the national economy and indicates increasing affluence and quality of life. However, families do not consider the amount of resources required to build all the required vacuum cleaners, and of course, their end-of-life fate in a disposal site.

A more sustainable lifestyle is one where consumers prefer to buy a service which gives them the same clean floor. Imagine if vacuum clean manufacturers had offered a cleaning service from the start, instead of trying to sell vacuum cleaners to every citizen. One can only imagine the savings in material inputs and waste generation over the decades that vacuum cleaners have been in use**. If this example could be repeated for other commonly purchased consumer products, it would make a significant contribution to <u>the environmental agenda</u>**.

…**Around the world, lifestyles promoted via Internet, international advertising and other media, stress personal material accumulation, individualism and luxurious comfort**. This can send a mixed message to consumers or adversely influence sustainable purchasing decisions by discouraging product service systems, or even dismantling existing ones.

…Clearly, one of the main challenges to adopting product service systems is the cultural shift necessary for consumers…Within a company, barriers can include…**shift in tradition from judging and measuring performance based on the quantity of goods sold**, and a skilled service personnel" (Italics in original; Boldfaced emphasis added).

"The Role of Product Service Systems in a Sustainable Society, United Nations Environment Program, Division of Technology, Industry and Economics, at p. 3-5.

> "Changing consumption and production patterns is one of the priority areas of discussions in the preparatory process for the World Summit on Sustainable Development (WSSD)…held in Johannesburg, August 26-September 4, 2002. At the third preparatory meeting…held in New York, March 25-April 5, 2002, **the European Union presented proposals for a ten-year work program.** UNEP and Consumers International presented preliminary results of a worldwide survey among all governments on the status of implementation of the UN Guidelines on Consumer Protection, section Sustainable Consumption (as adopted by the General Assembly in 1999, decision 54/449, carried out in partnership with Consumers International.
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> …[While] over 50 countries…strongly indicated their awareness about the existence of the guidelines, the activities they have carried out so far, and their information and training needs to further establish the policy frameworks…there is still an important *lack of understanding* about the potential contribution of…sustainable consumption and production policies. As has been stated in the Chairman's paper, 'small and medium-sized companies should be assisted with information and training programs to grasp the business opportunities arising from the increasing awareness of consumers about sustainability'.
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> …Eco-efficient practices to achieve a better quality of life for all…should in principle be a non-controversial issue…however, lack of knowledge sometimes leads to a hesitant or slow uptake of the required policies. **This is why the EU, UNEP and Consumers International feel it timely to take action and step up to framing the conditions under which all countries can contribute to implementing the required policies** and take part in an international working program…The objective of the workshop is to raise awareness and mobilize support for an international work program on sustainable consumption and production…" (Italics in original; Boldfaced emphasis added).

"Implementing Sustainable Consumption and Production Policies – North-South, South-South and East-West Partnerships – Workshop Outline", United Nations Environment Program, at pp. 1-2.