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**Note on ecology, inequality,  
and the labor aristocracy thesis,  
and response to Moran on embodied  
Ecological Footprints and trade**  
Maoist Information Web Site

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MIWS would like to address some confusion or lack of clarity it may have contributed to in publishing [Arghiri Emmanuel's remarks on natural resources and ecology](#). While arguing that global equalization of wealth would not be possible without a decrease in the incomes of average First Worlders, and that First World workers were net recipients of value and exploiters of Third World workers, Arghiri Emmanuel also argued that upward equalization with the First World would not be possible because of natural limitations. First World consumption is unsustainable and can't be duplicated by other nations, at least not without running out of resources for that consumption. MIWS agrees with that conclusion and, within the ecological movement, supports those who recognize that average First Worlders consume more than the global average with a higher-than-average ecological impact and are calling for a reduction in First Worlders' consumption. Nonetheless, there isn't a simple relationship between sustainability arguments and the labor theory of value. Those, with a Marxist background, who are considering the work of ecologists need to look at what the ecologists are saying carefully. What may be true about transfers in ecological terms may not necessarily be true in labor terms, and vice versa; at the same time, there may be more overlap between the labor aristocracy thesis and the truth about the First World's ecological position than has been suggested. Also, different ecological approaches may lead to different answers. MIWS has concerns about the limitations of Ecological Footprint accounting compared with other approaches that may more fully capture the environmental costs incurred by Third World nations.

If ecology were all that mattered, then one could conclude that most First Worlders weren't able to be revolutionary as a group, in some sense, because they consume, deplete, waste and appropriate more than the global average, even if one couldn't speak of a transfer from the Third World to the First World. In communist society,

consumption would be basically equal. Individuals may need to consume more than others because of biological needs, but there wouldn't be a whole group of geographically or socially concentrated people consuming more than other groups as a result of exploitation or property ownership. There is a basis for seeing the First World majority as opposed to socialism just on ecological grounds, especially when one considers that First Worlders' consumption is unsustainable and there could not be upward equalization to the First World level. MIWS could emphasize such an argument, but it does not, because MIWS believes that struggling for correct and better ideas about labor and productivity is more important at this time in the proletarian camp. (The agitation and public opinion struggle situation in the First World may call for a different emphasis.) Also, the labor theory of value and the theory of imperialism as decadent and parasitic capitalism have relevance to ecology; there are other reasons why a theory of value is needed and shouldn't be abandoned.

So, there is a difference between what a purely ecological argument about First World counterrevolution might look like and a surplus value argument. Both involve quantity and equalization considerations, but they involve different reasoning, and they aren't the same. MIWS is primarily concerned with class structure and exploitation as they actually exist -- not in relation to what things might look like in a communist society in the future. That is not to say the distant future is irrelevant, but to keep to a materialist orientation, MIWS has to focus on the concrete dynamics that exist now. When MIWS says First Worlders are exploiters, MIWS is making a claim about an actual transfer of value, not making some comment about the technical impossibility of raising incomes to the First World level some time in the future. (Oppositely, there are Trotskyists who claim that parasitism today doesn't matter because the First World working class may be re-proletarianized in the future -- of course, MIWS also opposes that idea as idealist.)

One could argue alternatively, in the manner of H. W. Edwards (*Labor Aristocracy, Mass Base of Social Democracy*), that the First World living standard is so high that First Worlders will behave in a reactionary way, equalizable or not, sustainable or not (perhaps an ecological equivalent of Lenin's remark about bourgeoisified workers "who are quite philistine in their mode of life, in the size of their earnings and in their entire outlook"). Then, one wouldn't need to demonstrate a net transfer, but the argument would be different.

The ecological transfer argument and the surplus value argument are different, but

the conclusion could be the same for both arguments today: most First Worlders are parasites in terms of an actual transfer taking place. MIWS is not really saying that there is a big problem involving Marxists' sloppily drawing from ecology while upholding the labor aristocracy thesis. MIWS is more concerned with arguments to the effect that First Worlders' consumption is unsustainable, but First World workers are still exploited. In not addressing, in its own right, how to think about exploitation in ecological terms, or treating that topic with less importance than it deserves, MIWS may have left the door open to recognizing that First World consumption is unsustainable without recognizing that it is exploitive, in fact denying that the First World majority is exploiters, particularly where an ecological conclusion may seem to contradict a surplus value conclusion. In struggling for correct ideas in the communist movement, MIWS is particularly concerned about expressions of such thinking appearing in a Marxist context.

The idea that most First Worlders have an excessively high standard of living but are exploited by capitalists is something MIWS would expect from ecologists becoming acquainted with Marxism or pseudo-Marxists becoming acquainted with ecology, with eventual conformity between the two seemingly dissonant positions' being likely. It suits current mainstream interest in the environment: acknowledge that First World consumption is unsustainable but insist that the First World population is oppressed by multi-national corporations, "the ruling class," the "bosses," "globalization," or Bush and Cheney, like everyone else is. First Worlders may or may not be ecological parasites. It gives a radical-sounding -- or safely mainstream -- ecological or environmental hue to what would otherwise be plain economic chauvinism, social-democracy or white nationalism.

The idea that First World living standards are unsustainable is so commonplace among the petty-bourgeois thinkers that MIWS would fear that the idea had lost its edge if it weren't for pseudo-Marxists' upholding First World consumption as a goal for oppressed nations. Ecological arguments have a role to play in combating cruder expressions of the Theory of the Productive Forces. Where MIWS parts ways with some sustainability advocates is in how sustainability is understood in terms of inequality. First World people in general have an easier time seeing inequality than adverse relationships between people -- it could be the old idea that First Worlders are just so fortunate or blessed, rather than exploiting or harming others. Though global warming is prominent in the media, MIWS comes across statements to the effect of

"the First World living standard is unsustainable, but First World people are mostly ruining their own country, and their own prospects for long-term survival, not the species'," and "the First World living standard is unsustainable, but wouldn't decrease significantly if flows between the Third World and the First World were ended." Accompanying such statements in a communist context is the idea that the First World working class is a proletariat. Perhaps the most common problematic idea is that the First World living standard can stay the same; practices, in relation to recycling, use of renewable resources, etc., within consumption just need to change. People can keep their lifestyles if they just "go green," supposedly.

The First World proletariat myth can be dealt with using traditional Marxist-Leninist criteria and approaches developed by Marxist-Leninist-Maoists. MIWS would like to suggest an approach to thinking about exploitation in ecological terms. MIWS is not interested in recruiting for anti-Marxist ecology and recognizes that ecological exploitation is conceptually different than exploitation in the labor theory of value, but MIWS believes there is such a thing as Marxist ecology, in which advances can be made. There are some in the ecology movement, whose work is promising, who need to be steered away from incorrect ideas about class structure. There are also people with correct ideas about class structure who may get caught up in certain ecology fads they don't understand. If progress can't be made by people interested in integrating Marxism and ecology, they should drop either the ecology or the Marxism, probably the latter since MIWS knows that pseudo-Marxism predominates. For that matter, MIWS suggests that those who think the labor theory of value or its application is "academic" or that the labor theory of value is some burdensome legacy of communism stop calling themselves Marxist for now and either study the labor theory of value or think of things in ecological terms only or whatever they are more comfortable with without confusing that with Marxist political economy.

Scientifically, MIWS aims to challenge the assumption that the First World living standard can be kept and that making it sustainable is just a matter of internal change, of changing practices and policies within the First World, or even a matter of making adjustments within the economic and social relationships that already exist between the First World and other countries to make them more ecologically friendly, rather than ending contradictory relationships between the First World and the rest of the world that are adverse or detrimental. The First World's ecological relationship with the Third World may involve a kind of exploitation. In thinking about ecological

exploitation, the key thing is not whether a standard of living is sustainable or even whether a certain high standard of living would exist in communist society, but the relationship between different levels or kinds of consumption and their corresponding ecological impacts. Within ecology, different concepts have been put forward that are relevant as potential sites of exploitation: the exchange of products corresponding to different amounts of energy, the exchange of products corresponding to biomass, the exchange of products corresponding to carrying capacity, and specifically the exchange of products corresponding to biologically productive land and sea area needed for continued consumption.(1)

MIWS is politically most friendly to the ecological arguments that hold that most First Worlders are parasites on the Third World. There are alternative ideas with different emphases, such as the idea that current generations with their high consumption levels are taking away from future generations by diminishing and not replenishing the stock of ecological and natural resources. Lately, chauvinists have been attacking China's economy as unsustainable or contributing above average to global warming, but some ecologists have had similar ideas about the Third World's "exploiting" nature or future generations together with the First World. When MIWS hears people lumping the Third World as a whole with the First World in terms of ecology, MIWS is drawn back to a pure labor theory of value approach, because such an ecological view may not be able to account for the social struggles that exist within humyn society. The age contradiction implied by the proposed generational ecological struggle is relatively submerged compared with the national contradiction at this time. Nonetheless, MIWS addresses ecology in case there is a legitimate line struggle in the proletarian camp over whether the humyn species' ecological impact as a whole is more important than the First World's ecological exploitation, and other ideas pertaining to ecology. MIWS's contention is that there is actually more ecological basis for the principal contradiction to be between imperialism and the oppressed nations than not. Efforts to make the humyn species' consumption more ecologically sustainable must address the First World's share of the ecological damage affecting the Third World.

Exploitation needs to be analyzed with correct concepts. For the purpose of this article, MIWS will talk in terms of Ecological Footprints, because of the current faddish interest in the concept (faddish because there is, to some extent, no scientific logic behind the popularity of the concept relative to alternative concepts in ecology

and economics, not to mention labor-centered approaches of the kind that MIWS has been discussing). An Ecological Footprint is the amount of biologically productive land and water area needed to support a lifestyle or a population's consumption. If the land is available, that means that nature can cover what is required and regenerate what needs to be regenerated for the consumption to continue without a net loss of resources. Ecological Footprint accounts typically includes land needed to absorb emissions and contain waste, and land that is simply inhabited and "built up" that used to be biologically productive. If an Ecological Footprint is too large, the consumption could still take place, but the same land would be used intensively. Eventually, resources needed for the consumption would disappear. There is a whole methodology behind Ecological Footprints, but instead of evaluating that in detail, MIWS will make some general comments about the scope of the accounting tool and pose some what-if questions for those who are already interested in Ecological Footprints.

MIWS is most concerned by the fact that Ecological Footprint accounting focuses on biocapacity needed to sustain the consumption of renewable resources and deals with non-renewable resources only by considering the ecological footprint left by their extraction or production and use (e.g., the land needed to absorb emissions during production). An Ecological Footprint can be made up of cropland area, grazing land area, fishing grounds area, forest area, build-up land area, and carbon land area (biologically productive land area that would be needed to absorb carbon dioxide not absorbed in the sea).(2) Ecological Footprint accounting assumes that resources needed for consumption can be regenerated. EF is used to measure the amount of appropriated biocapacity compared with available biocapacity and the sustainability of consumption just in terms of biocapacity. For governments that are already working to end the use of non-renewable resources, EF would make sense, but EF may be useless as a way of assessing the environmental impact experienced by Third World nations corresponding to the exportation of non-renewable resources. Of concern to MIWS in the context of unequal exchange discussions is the fact that a nation could only export the biocapacity in biologically productive land and water area that it has, with world-average productivity. If an oppressed nation for whatever reason had relatively less productive land at its disposal, it could be a net importer of embodied biocapacity, contradicting the First World ecological parasite hypothesis. Normatively, the problem with this is that non-renewable resources are assumed to have no value ecologically. Labor is also ignored of course, but that is given with most

ecological accounting approaches. Now, readers familiar with EF will notice that nothing MIWS has said here about EF is new, but what MIWS has said is very much related to thinking about humyn injustice. If the First World prevents Africans from migrating to it, leaves Africans with a total available biocapacity of only 1.3 global hectares per persyn (whereas "high-income countries" have 1.8 global hectares per persyn), and forces Africans to labor mining metal for the First World, some African countries may be net importers of biocapacity (not necessarily), but it would be twisting things to call them parasites. For one thing, the non-renewable resources are irreplaceable, which is why they are marginalized in Ecological Footprint accounting. That is nothing against EF per se. EF is just an accounting approach, and its methodology could be internally consistent. But EF needs to be used appropriately.

If MIWS wanted to approach the question of ecological injustice and Ecological Footprints in a facile way, it could take an approach suggested earlier and just look at the mathematical averages involved. According to the Global Footprint Network, the per-capita Ecological Footprint of the united \$tates was 9.6 global hectares in 2003, about 24 global acres.<sup>(3)</sup> The world average was only 2.2 global hectares per person, or 5.5 global acres. (Global hectares are standardized hectares with average productivity.) The Footprints for "middle-income countries" and "low-income countries" were 1.9 global hectares per person and 0.8 global hectares per person respectively. The Latin American and Caribbean Footprint is 2.0 global hectares per persyn, less than the world average. MIWS could point out that the median individual Ecological Footprint of people in the united \$tates was greater than the global average. So, even if the individual Ecological Footprint were equalized in the Third World, the Ecological Footprint of a persyn in the Third World would still be less than the global average. To reach the global average while the total Ecological Footprint of the humyn species stays the same, there would need to be a shift not only from imperialist countries to the Third World, but from typical imperialist country people. Even if high-income people in the imperialist countries were to abandon their lifestyles and have an Ecological Footprint of no more than 2.2 global hectares, more Footprint area computationally would need to come from somewhere for the Third World persyn to have the global-average Ecological Footprint: that area would come from the Ecological Footprint of at least some non-high-income imperialist country people, unless non-high-income imperialist country people had an average Footprint of less than 2.2 global hectares. First Worlders have a disproportionate share of the total world Ecological Footprint, more than the global average. This is more

comparable to a non-exploitation type of oppression than exploitation, since it is not clear that humyns themselves or nations are being exploited for something that they provide. It is commonly said that there would need to be X more planets if everyone were to consume like First Worlders. That also captures the gist of what MIWS is saying: most First Worlders would have to consume less of what they are consuming for per-persyn Ecological Footprints to be uniform. Within an intra-generational humyn oppression context, normatively what this would imply is that people should have a right to an equal share of the world's total Ecological Footprint. Many people taking a species- rather than group-centered approach would contest the idea of a "right" to an Ecological Footprint when there is already overshoot (excess Ecological Footprint area that corresponds to unsustainable consumption), but the idea makes sense from an egalitarian perspective: the consumption benefits corresponding to any Ecological Footprint, dangerous or not, should be distributed equally, where that Ecological Footprint affects everyone.

That would be an easy way of answering the ecological injustice question: First Worlders are dipping into what would be Third Worlders' equal share of the species' Ecological Footprint and taking advantage of whatever is preventing the Third World from having a comparable Footprint. However, that doesn't say anything about a flow from the Third World to the First World. The Ecological Footprint concept could still be useful, but needs to be understood fully. One aspect of Ecological Footprints is that an Ecological Footprint is not necessarily confined to the land belonging to the consumers for whom the Footprint is calculated. The land or water can be anywhere. It would be wrong to assume that a nation's Ecological Footprint only corresponded to an appropriation of biocapacity in its own land.

The entirety of the Euro-Amerikan settler nation's land is actually stolen from First Nations and Mexico or colonized. Any Euro-Amerikan Ecological Footprint would have national oppression implications. Under the joint dictatorship of the proletariat of the oppressed nations, Euro-Amerikans who have not been relocated and remain in North America may have an Ecological Footprint corresponding to humanitarian needs only and not have any other social right to consumption until imperialism is completely destroyed and class and national contradictions have been resolved. For this article, though, MIWS will humor the white nationalists and assume that the Euro-Amerikan nation is entitled to the world-average Ecological Footprint and any portion of their Ecological Footprint that might correspond to land that they occupy.

In addition to using the Ecological Footprint concept, MIWS will also use the concept of an embodied Ecological Footprint to refer to a net transfer of biocapacity and illustrate ecological exploitation in terms of flows between nations. This is relevant to the ecological non-equivalent exchange issue some have raised but not resolved adequately. MIWS finds it puzzling that there are people raising the issue of the non-equivalent exchange of embodied biomass/carrying capacity/emissions/energy or material tonnage but denying that First Worlders are parasites without doing any calculation, in ecological or value terms. An implication of any unequal exchange accounting or any other non-equivalent exchange accounting, whether in ecological or labor terms, is that the net transfer may be enough that, if the net transfer were eliminated, the receiving country's majority may lose even if benefits were equalized internally. Anyone who accepts unequal exchange in theory cannot assume that most First Worlders aren't parasites. That is the difference between talking about unequal exchange rhetorically to give chauvinism an internationalist gloss and applying the concept in scientific analysis. MIWS opposes the practice of listing ecological or value unequal exchange as a source of transfer while treating it as secondary and denying or sowing doubt about the majority parasite idea. Unequal exchange is not the kind of thing one can list and forget about either; if what MIWS were saying about labor value unequal exchange, in relation to labor aristocracy exploitation or the export of capital, were true, a number of analyses would need to be modified or abandoned. MIWS has only begun to explore what consequences a First World majority ecological parasite conclusion would have.

Rather than attempt a precise calculation, MIWS will talk about some broad contours to show how First Worlders could be ecological parasites, using the Ecological Footprint concept. People who know that Americans consume more natural resources than they contribute, import more raw materials than they export, import most of their fuel, etc., already have an introduction to what MIWS is going to say. A portion of the U.S. Ecological Footprint corresponds to the appropriation of biocapacity outside the United States. To determine whether a majority of U.S. residents are parasites, MIWS considers the median individual Ecological Footprint of the United States and the net transfer of embodied Ecological Footprint area. If the equalized (average) U.S. individual Ecological Footprint is less than the median Footprint after the net transfer is removed, then a majority of U.S. residents are parasites in relation to the rest of the world. Net transfer of embodied Ecological Footprint area is different than "ecological debt," which has to do with overshoot and is calculated on the basis

of the "debtor" country's own land and water area.

### **Moran on embodied Ecological Footprints and international trade**

Work has already been done on embodied Ecological Footprints and international trade, notably by Jan Otto Andersson, who has dealt extensively with unequal exchange and Arghiri Emmanuel's theory. MIWS refers to another paper, available on the Internet.<sup>(4)</sup> It would seem more work is being done on calculating ecological flows than on calculating net flows of value. MIWS thinks this is interesting both as a reflection of the strength of the sustainability movement in the First World compared with the communist movement, and as a reflection of the scientific poverty of the communist movement. Integrating United Nations COMTRADE global trade data with product Footprint yield data from the Global Footprint Network, Moran looks at the "ecological balance of trade" between countries in terms of Ecological Footprint in 2002. MIWS has some questions about the way some things were derived and counted in Moran's calculations (which Moran partly addresses by discussion), but since MIWS isn't offering an alternative way of dealing with the lack of information on specific embodied biocapacity flows between countries, MIWS won't contest what Moran did as far as that; Moran says others are working on embodied EF input-output tables. Leaving energy Footprint out of the analysis so impacts on fuel-exporting countries wouldn't be exaggerated, Moran actually found that there was a net transfer of embodied EF from "Rich" countries to "Poor" countries, in contradiction to previous research looking at material flows. Moreover, North America is a net exporter of biocapacity. There may therefore be no need to calculate the median Footprint of u.\$ residents, because there may be no net transfer to the united \$tates for even the united \$tates to be parasitic as a whole.

This is perhaps anti-climactic, but MIWS reminds readers of the limited scope of EF, focusing on renewable resources, as well as MIWS's original point that there isn't a simple correspondence between sustainability and ecological arguments and arguments drawing from the labor theory of value. If MIWS wanted to be unprincipled, it could have pretended that Moran's paper didn't exist so as to not raise questions that might appear to cast doubt on the labor aristocracy thesis. MIWS is trying to advance science and demonstrate a scientific process, not writing poetry or trying to tailor things to be digestible by middle-class people or win them over to a cult. The science situation in the communist movement is so bad, MIWS has to raise arguments against itself just to move things along scientifically.

As it turns out, the reasoning in the embodied EF and trade paper -- which allegedly drew from the contributions of the Global Footprint Network "at some stage to almost every aspect of this paper" -- regarding a crucial question is flawed. With varied wording, the paper raises what are actually two different questions and seems to conflate them: whether "natural resources flow predominantly from less developed regions to more developed regions" (p. 20) and whether "the wealthy countries of the North are net importers of biocapacity from the South" (p. 32). The two questions are different because resource flows may be intra-regional, and the magnitude of intra-regional flows has nothing to do with the net flow between two defined regions, such as the "North" and the "South." Intra-regional flows may predominate, but there could still be a net inter-regional flow. Section 4.1.1, evaluating the question "Does the 'Rich's Footprint rest on 'Poor' nations?," concludes, "If anything the 'Poor' appear to appropriate from the 'Rich'." No calculated net flow between "the Rich" ("those 48 countries home to the 20% of the world population with the highest per capita GDP") and "the Poor" is actually presented. The author appears to arrive at the conclusion of the Poor's appropriating from the Rich just by considering intra-Rich flow, the gross amount individual Rich countries export relative to the gross amount individual Poor countries export, and the percentage of imports to the Poor from the Rich relative to the percentage of imports to the Rich from the Poor -- whereas what is needed is a comparison of the global-hectare amount of embodied biocapacity exported by the Poor to the Rich compared with the global-hectare amount of embodied biocapacity exported by the Rich to the Poor. Just comparing the arc lengths in the concentric pie chart of the paper's Figure 1 would be incorrect, because the arc lengths may represent any absolute amount.

MIWS admittedly has not retraced what Moran did and can only give the benefit of the doubt and assume that a net transfer from the Poor to the Rich was actually calculated but not reported. The paper's Table 3 is more clear; although, calculated net transfers again aren't shown anywhere, and MIWS had to compute them from the table itself. There is a net transfer from "High Income" countries to "Low Income" and "Middle Income" countries (World Bank definitions), taken as a whole, 23 million hectares  $((9 + 124) - (15 + 95))$ , confirming Moran's conclusion. However, there are net transfers from "Low Income" to "High Income" and "Middle Income," 6 M ha and 10 M ha, respectively. (The units are millions of hectares, not millions of global hectares.)

All of these net transfers are too small to likely account for much in regard to either First World Footprint or Third World Footprint for purposes of determining the beneficiaries of exploitation. Even if there were a comparable net transfer to Rich countries or High Income countries, making them net importers of biocapacity, the total Footprint of the united States alone was 2.8 billion global hectares in 2003. It is worth mentioning that, according to Global Footprint Network data, there is more available biocapacity per person in high-income countries than in low- and middle-income countries, probably partly a reflection of the low population of high-income countries. Intensity-wise, lower-income countries' exporting biocapacity may have a greater impact than higher-income countries' exporting biocapacity.

MIWS will put aside that line of reasoning, ignoring energy Footprint, involving the calculation of embodied EF of individual products, only pointing out the need to disaggregate further to identify the net transfers specifically between the united States and either the rest of the world or the Third World, and the need for accurate input-output tables to account for feedbacks. MIWS understands that export and import figures, not disaggregated by trading partner, are available in the Academic Edition of the Global Footprint Network National Accounts, and assumes that one could come up with a u.s.-rest of the world net transfer figure using that edition. MIWS would like to return to an important accounting assumption Moran made for Moran's main calculations and analyses: the assumption that there is no such thing as uneven embodied energy land Footprint in internationally traded products. "Energy land" refers to land area required by the generation and use of energy. Carbon land more specifically is the forest area needed to sequester carbon dioxide emissions not sequestered by the sea. Moran states: "Nations which import embodied CO<sub>2</sub> in energy-intensive products do not physically exert their carbon footprint on the providing nation but rather on the global commons. Thus the resulting Footprint cannot be said to be literally exerted on that nation" (p. 17). (This refers to products embodying CO<sub>2</sub> emissions as a result of production and transportation, not just Footprint resulting from the use of fuel that a country imports and uses, but the same idea, about the Footprint's not being exerted on the nations exporting the products, applies.) While that is true of products traded between only two countries, the issue loses its relevance in the context of finding a net transfer from the entire rest of the world to one country, namely the united States. The u.s. per-capita Footprint was 9.6 global hectares (gha) in 2003. The u.s. per-capita carbon Footprint alone was 5.66

gha, more than half of the total Footprint per person. Most rain forest is in Africa, Asia, and Latin America, and only 14% of forest was in "North and Central America" in 2000.(5)

Assuming for this illustration that Footprint is proportional to income and that the ratio between the u.s. mean (9.6 gha) and median individual Footprints in 2003 was roughly the same as the ratio between the u.s. mean and median household incomes in 2003 (American Community Survey), the median u.s. individual Footprint in 2003 was 7.5 gha. So, 2.1 gha of the per-capita 9.6 gha Footprint would need to be exerted on the land of countries other than the united States, in connection to trade, for half of u.s. residents to be world parasites. One could calculate the CO<sub>2</sub> emissions and corresponding Footprint attributable to the use of net fuel imports. There are also the united States' own exports of coal and other fuel, whose use exerts some Footprint on the united States, the united States' exportation and importation of embodied energy EF in the form of non-energy goods and services, the united States' net export of embodied non-energy EF, if any, and the percentage of emissions sequestered by u. s. forest, that need to be taken account, but the question isn't one of comparing the embodied emissions of exported coal with the embodied emissions of imported petroleum. Hypothetically, the united States may even export the same amount of embodied emissions as it imports, but the united States' consumption of fuel imports has a greater impact on the available biocapacity of the rest of the world than the rest of the world's consumption of u.s.-origin fuel does on the available biocapacity of the united States.

Fossil fuel may seem to be special because its production and use both leave Footprint. Much of the difficulty there is with energy and emissions in Ecological Footprint discussions has to do with how to conceptualize the impact of fuel consumption locationally. Since one of the underlying concerns of the Moran paper is the impact an ecological trade balance has from the perspective of a nation experiencing a net loss of appropriated carrying capacity, it would be imprudent to ignore energy Footprint in all contexts where there is a question of parasitism. Moran does offer calculations of net embodied CO<sub>2</sub> emission imports for several countries, but the Footprint impact of fuel use on exporting countries is not dealt with, for reasons Moran explains. When the majority of the CO<sub>2</sub>-sequestering forest is in the Third World and the forest has to be kept for the absorption to continue, the reciprocal impact of fuel use does matter and can't be just brushed aside as impacting

only the global commons, rather than particular nations. Also, there isn't really any qualitative difference between energy Footprint and non-energy Footprint. Footprint is Footprint; there are differences only in methods use to calculate Footprint from the consumption of different products. The portion of the Footprint experienced by a region due to trading partners' use of fuel is qualitatively the same as Footprint experienced by the nation due to local production of whatever.

To estimate the u.\$ Footprint from the use of net fuel imports, MIWS looked at the u.\$ Department of Energy Energy Information Administration 2006 flash estimate (2007 May) of u.\$ CO<sub>2</sub> emissions from energy sources and 2003 and 2006 net fuel imports data from other documents. According to MIWS's calculations using preliminary figures in the flash estimate document, petroleum CO<sub>2</sub> emissions were 44% of energy-related emissions in 2006. Natural gas emissions were 20% of emissions. (Coal exports were 4%, about 0.05 billion short tons, of production, which was 1.16 billion short tons.) According to a 2007 EIA Web page, net imports of oil were 60% of total oil consumption in 2006, and net imports of natural gas were 16% of natural gas consumption. Assuming uniform emissions and Footprint per fuel unit, 32%, 1.8 gha, of the 5.66 gha per-capita carbon Footprint may be attributed to the consumption of net fuel imports, less than the aforementioned 2.1 gha needed (at minimum, before taking into account emissions sequestered by u.\$ forest) to demonstrate u.\$ majority Footprint parasitism relative to the world. It turns out that the percentage is the same using 2003 emission data with 2006 trade data. Using 2003 petroleum and national gas net imports and consumption data from tables based on EIA data in *Natural Gas Monthly* (2007 March), the percentage of the carbon Footprint due to consumption of fuel imports is even less, 29% (1.6 gha). MIWS could now do something conceptually different and consider the external Footprint of total fuel imports, not just net fuel imports, but MIWS will call it a day for now.

### **Conclusion**

People who are concerned with the united States' contribution to global warming may be thinking "big whoop." The united Snakes is still the biggest polluter of Spaceship Earth. MIWS would agree. At the same time, communists need to understand that, that is a whole other issue, as MIWS has explained. Strategically, it would not be enough for oppressed nations to end oil and natural gas exports to the united States, to end the disproportionate emissions. Barring transformation of the

economy, energy and economic policy within what are currently u.\$. borders would need to be subject to a revolutionary force originating from the outside. The united States' nuclear weapons also pose an ecological threat.

At this time, MIWS isn't particularly concerned with the results of this or that ecological trade balance accounting. MIWS has demonstrated a thought process and a principled and accountable way of dealing with ideas. There is no reason why all accountings in different units should agree with each other. MIWS emphasizes the labor factor for historical, sociological and economic reasons.

MIWS sees some interesting parallels between the Moran paper and discussions of imperialism that put too much emphasis on the export of capital between imperialist countries. MIWS is sure the problems aren't unique to the Moran paper. Specifically, the attention to labor is lacking, and there is a general neglect of the decadent and parasitic character of the system. MIWS wouldn't have said anything, because MIWS doesn't expect surplus value to be the focus of a random ecology paper; however, the paper compares the embodied Ecological Footprint trade balance with the tonnage trade balance and the monetary trade balance, but not with any labor-time trade balance, while suggesting that they reinforce each other. MIWS suspects a form of commodity fetishism, because people and labor are missing from the picture. Moran briefly deals with labor in explaining an interesting apparent distortion of prices relative to embodied Ecological Footprint. Moran acknowledges that low-income countries sell embodied EF for less money per unit than high-income countries. (In fact, middle-income countries are the same as low-income countries in this way, though they sell embodied EF for more, but not as much as high-income countries.) It would not have been necessary to give an explanation just for this EF accounting task, but Moran explains only by saying, "Exports from Low Income nations are more land-intensive, and exports from Middle and High Income nations are more labour and capital intensive" -- as if higher-income countries' exports were more labor- and capital-intensive simply because lower-income countries' exports embodied more EF per dollar. MIWS has to point this out, because it is obvious in the paper that Moran hasn't calculated embodied labor in exports, either in labor-time or monetary wages, in any way, nor even embodied capital for that matter. Even if MIWS were to concede just the part about capital intensity, capital intensity and labor intensity shouldn't be lumped or mixed together like that (because the capital and labor both have incomes?) any more than capital or labor should be assumed to be linked to EF

intensity. The sentence simply does not belong in the paper, and it's an example of why communists can't leave everything up to specialists when it comes to ecology. The whole topic could become distorted.

With respect to decadence and parasitism, it's a matter of determining what's characteristic of the system and its formations and analyzing the contradictions within that, with scientific and not arbitrary definitions. There is still a land question in North America, and the Euro-American nation also occupies First Nations' lands within Kanadian borders; so, scientifically in many cases it isn't correct to consider just the settler entity called "the united States" as the unit. "International" flows within North Amerika are really largely intra-national flows. In this light, the real international flows become more pronounced. It is also the case that, since the end of colonialism (most of it), labor value unequal exchange has become more prominent and flows between imperialist countries support the realization of surplus value in those countries, much of which is appropriated from the Third World and possibly semi-imperialist Russia. That is in addition to the flows' being an effect of processes of equalization following the end of colonialism and profit-seeking on an international plane, as MC5 argues in the book *Imperialism and Its Class Structure in 1997* (pp. 25-37).

The underlying dynamic is accumulation and its outcome with a lack of free competition: parasitism. Rather than being out of the loop, the Third World is a source of labor for imperialist countries in neo-colonial trade and as a component part of the imperialist world economy. Only the role of the uneven distribution of "Ecological Footprint," if relevant, in that economy remains to be determined. If the causes of what an ecological accounting tool measures are sought, the causes shouldn't be analyzed separately from labor and the class struggle.

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## Notes

1. John Brodin, *The Bias of the World : Theories of Unequal Exchange in History*, *Lund Studies in Human Ecology* 9, Lund University, Lund, 2006
2. Justin Kitzes, Audrey Peller, Steve Goldfinger, and Mathis Wackernagel, "Current Methods for Calculating National Ecological Footprint Accounts," *Science for Environment & Sustainable Society*, vol. 4, no. 1, 2007
3. "Ecological Footprint and Biocapacity" spreadsheets, 2006 Edition
4. Daniel Moran, "Embodied Ecological Footprints in International Trade," LUMES Master's Thesis, LUCSUS, Lund University, Lund, 2007
5. <http://www.iucn.org/themes/fcp/forestissues/fcover.htm>