# LABOUR UNIONS, THE ENVIRONMENT AND 'GREEN JOBS'

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The recent special issue of the *Journal of Australian Political Economy*, 'Challenging Climate Change', clearly demonstrated that the strong connection between the economic and ecological is an integral aspect of political economic inquiry, as ecological issues increasingly impact on state policy, economic relations and electoral politics. special issue both Ariel Salleh (2011) and James Goodman (2011) highlighted the inadequacy of capitalism's current response to the climate crisis, a response founded on the strategy of ecological modernisation which maintains the current alienated relationship between labour and nature. Both Salleh and Goodman point to the need to repair the relationship between nature and labour through what Goodman calls an eco-socialist model (2011:159-62) and Salleh describes as 'living well', based on the low carbon economies of the global South (2011:128). These critical analyses and explanations of alternatives need to be supplemented by scrutiny of the current labournature relationship and the role that organised labour needs to play in order to build a sustainable green jobs agenda.

This article proposes that, within any progressive shift towards fusing labour and ecological sustainability, labour organisations must be central. The importance of labour unions to such significant political economic shifts has previously been acknowledged in Australia by Spies Butcher and Stilwell (2009:120) and internationally by Gould, Pellow & Schnaiberg (2008:78). The centrality of unions will be established by outlining some of the theoretical issues underlying the tensions in the relationship between labour and the environment. This demonstrates the critical role of labour in the transition to an environmentally sustainable future. The article will also critically discuss the fusing of labour processes and ecological sustainability in Australia by examining the

Rudd then Gillard government's environmental policy agenda. Finally, a review of the Australian labour movement's response to the challenge of green jobs leads to the identification of issues that need to be addressed if labour unions are to take a leadership role within future green job strategies.

## **Defining a Green Job**

One of the critical issues surrounding the discussion of green jobs is that there is no agreed understanding of the term or measures to ensure claims of 'greenness'. Nor is there clarity about the type of social relations in which green jobs are achievable. For example, the International Labour Organisation (ILO) defines a green job as one which simply 'reduce[s] the environmental impact of enterprises and economic sectors, ultimately to levels that are [ecologically] sustainable' (2008:2). However, the notion of ecological sustainability is highly problematic. It has been conceptualised, particularly by corporate and political interests, to represent the sustainable economic growth of capitalism through technology and market based environmental solutions such as emission trading schemes (Paton 2008). A more comprehensive vision of ecological sustainability sees it as requiring 'the maintenance of biodiversity, ensuring ecological integrity, maintaining the stock of natural capital and providing for intergenerational equity' (Stilwell 2008:42). Determining what is ultimately sustainable has become highly contested, resulting in the 'green' label being applied to a wide range of occupations. This ambiguity is best illustrated by the Australian Workers Union's (AWU) claim that jobs in the steel industry should be classified as green, because steel is recyclable and is an essential component of renewable energy technologies such as wind turbines (Howes & Leahy 2009:12).

The ambiguity concerning what can be characterised as a green job has resulted in attempts to distinguish 'classes' or 'shades' of green work. For example, the Australian Conservation Foundation divides green jobs into two streams, 'deep green jobs' such as the construction of energy efficient homes and 'light green jobs' such as mining workers involved in land rehabilitation (2008). The Australia Institute highlights five 'classes': transformational, a job which actively contributes to long-term ecological sustainability; low-impact, a job that reduces our ecological

footprint; remediation, a job which repairs ecological damage; natural appreciation, a job that improves access to the natural environment; and environmental education, a job that informs others about the need to reduce environmental impacts (Eren *et al.* 2010:7-9).

The preferred typology adopted in this article is that presented by Kate Crowley (1999:1017). It divides green jobs into three categories - deep, mid and light green, as shown in Table 1 below. This typology is useful as it provides a framework within which the green credentials of occupations can be evaluated. It enables us to assess recent Australian discussions and proposals for green jobs.

Deep Green Mid Green Light Green Mode Proactive Integrative Reactive Scope Long Term Intermediate Term Short Term Nature Transforming Reforming Conforming Objective Redefine Growth 'Ecologise' Growth Enhance Growth Operation Rejectionist Reinventionist Accommodationist Ecological Aim Ecological Sustainable Sustainability Modernity Development Jobs Preserving Nature Greening Industry Remedying Ecological Decline

**Table 1: Green Jobs Typology** 

Source: (Crowley 1999:1017).

Crowley's category of light green jobs and its aim of 'sustainable development' is compatible with a capitalist 'business as usual' approach to ecological sustainability. The mid green job category focuses on the pragmatic integration of environmental concern into existing industries, for example the greening of the auto industry. Mid green jobs require the development of market mechanisms and technologies to 'ecologically reform' the economic development of capitalism, but the mid green job aim of 'ecological modernity' is achievable within the social relations of capitalism. By contrast, the deep green job category is focused on being both proactive, such as through the design and manufacture of renewable energy technologies, and socially transformative, by confronting capitalism's essential drive for growth. The deep green jobs

aim of 'ecological sustainability' ultimately requires the development of an alternative to the existing social relations of capitalism and its ecologically destructive character.

## A Marxist Understanding of Tensions between the Interests of Workers and the Environment

Rather than trying to define which jobs are green and which are not, it is perhaps more constructive to consider the labour / environment relationship within the structure of capitalism and to scrutinise how current approaches to green jobs fit within its dominant social relations. This helps underline the ecologically destructive character of capitalism's current relationship to nature, while also demonstrating the central role that unions can play within a transition to ecological sustainability.

The relationship between labour and the environment is established within the general activity of production. Indeed, Marx notes that labour 'is 'first of all, a process between man and nature, a process by which man, through his own actions, mediates, regulates and controls the metabolism between himself and nature' (1981:283 cited in Foster 2009:32). Capitalism alters this relationship by separating labour from control over the means of production and shifting the role of labour to the production of surplus value for the purpose of appropriation within the production process (Harvey 2009:238). Using the insulation example, the production of fibreglass insulation requires the appropriation of nature in the form of mineral sands, which is mined using productive human labour and is then transformed into a commodity by human labour in the production process. It is this basic and constant interaction within the operation of capitalist production and value creation that frames the relationship between labour and the environment.

The inseparable labour / nature interaction within the activity of production generates tension between the interests of workers and the environment. The basic competitive nature of capitalist production, in which labour is subordinated, is growth orientated and therefore in conflict with the goal of ecological sustainability. Postone notes that the competitive nature of capitalist production creates a 'treadmill effect' as capitalist enterprise seeks to maximise profit through increased productivity, which 'increases the amount of value produced per unit of

[labour] time' (1993:289). This raised level of productivity in turn creates a new socially generalised standard of productivity, which becomes 'equal to that yielded by the older general level of productivity' (Postone 1993:289). In other words, the 'treadmill effect' explains that, to maintain profits, producers must constantly seek to expand production.

For Schnaiberg the 'treadmill effect', or what he refers to as the 'treadmill of production', explains the ecologically destructive character of capitalist production (Gould et al. 2008). The self-reinforcing growth logic of the treadmill of production is ecologically harmful and unsustainable, as the treadmill requires a continuing increase in the appropriation of finite natural resources. This constant drive for growth also intensifies pollution and the degradation of the environment. An obvious example of this is the accelerating level of greenhouse gas emissions being pumped into the global atmosphere, as a result of increased production, despite efforts to curb emissions (Storm 2009:1013)<sup>1</sup>. Workers and unions seeking to avoid job losses are 'forced' into supporting a strategy of increased production, which creates tension between environmental concerns and workers' interests. The state and political elites, who recognise that jobs, economic growth, state spending and electoral success are attached to the expansion of production and consumption, are also tied to the continued operation of the treadmill

This understanding of the relationship between labour and the environment is highly abstract, given that the relationship is mediated by a range of factors. Of particular importance is the inter and intra sectoral competition between capitals, which means that workers (embodiment of labour) are employed by different companies, in particular industries and regions. This competition between capitals mediates the interests of workers, places groups of workers in competition with each other and contributes to the tension between workers and the environment. This tension is clearly visible in 'jobs versus the environment' conflicts, where workers and unions oppose environmental measures which are considered to harm production and therefore threaten their economic

Strom notes that '[t]he Kyoto Protocol and the European Union's Emission 1 Trading System (EU-ETS) have produced no demonstrable reductions in emissions (Lohmann, forthcoming); in fact, during the last decade, the increase in atmospheric CO2 concentrations has accelerated to the fastest rate ever recorded' (2009:1013).

livelihood (Obach 2004:29-30). The jobs versus environment debate has been labelled by Eban Goodstein as the 'trade-off myth', given more jobs are lost in the United States due to natural disasters, such as the recent oil spill in the Gulf of Mexico, then are lost as a result of environmental regulation (1999:46). Nevertheless, current concerns over action on climate change and the impact that this may have on employment and economic growth clearly demonstrates the continuation of jobs versus the For example, the Australia Workers Union environment conflicts. (AWU) is worried that its members employed in highly polluting industries maybe left on the 'scrap heap' as a result of climate change policy (Peacock 2008). Consequently, the AWU has warned that it will withdraw its support for a carbon tax if it results in any job losses. The notion of a (light) green job presents a convenient solution to this tension by suggesting that protecting and maintaining the natural environment can be integrated into the existing technical and social relations of capitalist production.

Unions may also mediate the relationship between workers, capitals and the environment. This raises the question of how effective are unions in promoting the interests of workers, given that they operate within the social relations of capitalism? Bramble emphasises their limited effectiveness when he says that; '[u]nions are institutions firmly located on the terrain of capitalism, devoted to improving the terms on which labour power is sold within the existing class system rather than striving to transform it' (2005:74). This form of 'pessimistic interpretation' (Hyman 1973:11) can been criticised for conveying a simplistic understanding of unionism within capitalist society, which ignore the complexities created by 'evidence of continuing resilience and even combativity in certain areas of employment' (Darlington 2010:130). Such complexities are clearly visible in the variable responses of unions to the green job challenge. Indeed, the tension between workers and the environment renews questions about the status of unions within capitalist society. Hyman's question, for example, is pertinent in this context: 'is a trade union a bargaining agent, a social partner or mobilizer of discontent, or all of these at one and the same time?' (Hyman 2001, cited in Buchanan & Briggs 2005:8). The contested role of unions within capitalist society has inevitably led to contradictory union responses to the challenge of fusing labour and environmental protection. Illustrations of these contradictory responses are discussed later in this article

At the concrete level the state and state policy is also significant in mediating the relationship between labour and the environment, as capitalist business requires states to establish the rules of the game by which accumulation proceeds. The state therefore provides 'the framework within which capitalist relations can exist through such activities as the provision of infrastructure, the regulation of markets, the maintenance of 'social cohesion' or the correction of 'market failure' (Jessop 2002, cited in Cahill 2005:2). The Rudd/Gillard government's home insulation policy and Solar Homes and Communities Plan are examples of state programs that illustrate that the form of markets is variable, and hence are a question of political economic relations.

## Labour and the Greening of Capitalism

Fusing labour with environmental protection via green jobs is a limited strategy when restricted to the promotion of 'sustainable' or 'green' capitalism as the remedy to the current ecological crisis. The growth and promotion of green jobs is explicitly linked to the development of green industries, which are being transformed by capital, driven by competitive and political pressures, to be environmentally 'sensitive'. The notion of green capitalism is then closely tied to the theory of ecological modernisation, which 'assumes that environmental and economic interests are compatible and that major environmental problems can be solved within the current industrial/economic development trajectory without radical social or political change' (Beder 2006:93). More than this, protecting the environment is recast into a cutting edge investment and production opportunity, a new frontier for accumulation.

This accumulation strategy is visible in the two dominant types of solution put forward by the proponents of green capitalism, emphasising the market and technology. Examples of these posited solutions include energy efficiency, clean coal, green consumption, pollution markets and trading schemes. This transformation of nature into a cutting edge accumulation strategy represents a new dimension or manifestation of the 'capitalist production of nature' (Smith 2007:16).

This accumulation strategy can be interpreted in terms of the earlier discussion of the capitalist production of nature. Transforming nature (use value) by labour power into commodities (exchange value) for the purpose of creating surplus value for the capitalist is the 'first capitalist production of nature'. It is through this process that nature becomes internal to the social relations of capitalism and nature is transformed to be recognised before anything as exchange value. Nature is therefore a necessary means by which capital fulfils its need for profit and '[t]o this end, capital stalks the earth in search of material resources' (Smith 2008:71). There are numerous examples of this capitalist production of nature, from the manufacture of silicon chips to the mining of iron ore. This 'first' capitalist production of nature continues apace but is now being supplemented by a 'second' manifestation of the capitalist production of nature<sup>2</sup>. The strategy of green capitalism transforms nature into 'the business', where 'sustainability' becomes an industry as capital engages in regenerating nature within capital - nature relations.

In other words, green capitalism seeks to restore and protect nature by regenerating nature within the existing social relations of capitalist production. Green capitalism has therefore 'become nothing less than a major strategy for ecological commodification, marketization and financialization which radically intensifies and deepens the penetration of nature by capital' (Smith 2007:17). The regenerating of nature by capital via its intensified production results in multiple permutations of the second production of nature. This is clearly recognisable in the selling and trading of greenhouse gas emissions, in the pursuit for green technologies, the protecting and regeneration of forests for carbon credits and the proliferation of 'green' consumer goods.

This understanding of the internal relationship between capital and nature demonstrates the contradictory and complex ways in which capital engages with nature. It emphasises, through capital's varying engagements with nature, that at particular times and places the production of nature by capital harms humans and nature; and at other times benefits humans. Increasingly however, the second manifestation of the production of nature is being advanced as mutually benefiting humans and nature; as capitalism seeks to reinvent itself as green. It is within this intensified production of nature that the notion of a green job is founded.

These different manifestations of the production of nature by capital provide scope to re-examine our understanding of green jobs. While

These manifestations of the production of nature should not be confused with Smith's first and second nature distinction (Smith 2008:49-91).

light, mid and deep green jobs all engage in the production of nature, they do so from different understandings of the relationship between nature and production. Light green jobs are primarily connected to the first production of nature as they seek to repair, ameliorate impacts and maintain the first capitalist production of nature. This implies that the current relationship between nature and capital is broadly acceptable. Mid green jobs differ as they seek to bring ecological sustainability into the production of nature to form the second production of nature. They therefore aim to decouple the ecological harm associated with the first capitalist production of nature by deepening and greening capital's commodification of nature. By contrast, deep green jobs can be perceived as rejecting the first and second production of nature by capital, as both fail to confront capitalism's ecologically destructive drive for growth. Deep green jobs imply that the production of nature should be guided by the different principle of social and ecological need and not by the current socially embedded principle of profit<sup>3</sup>.

While the lines drawn here between types of green jobs and the varying forms of capitalist production are by no means unproblematic, their iuxtaposition provides a richer understanding of a complex and variable relationship between labour, the production of nature and ecological sustainability. The next step is to link theory with practice – to move beyond this abstract discussion of labour and the environment to an understanding of the prevailing green job policy framework within the Australian state.

## The State of Australia's Green Jobs Agenda

In the 2007 Federal election the Labor opposition, led by Kevin Rudd, made climate change and the environment a key policy platform. Labor's victory in that election marked a substantial shift in Australian environmental policy and debate. The Rudd government quickly ratified the Kyoto Protocol and began developing an Emissions Trading Scheme (ETS) with the assistance of its policy advisor Professor Ross Garnaut and his report *The Garnaut Climate Change Review*. The proposed ETS

<sup>3</sup> I acknowledge that social and ecological need are contestable concepts but beyond the scope of this paper. For examples of what the production of nature based on social and ecological need may look like see (Kovel 2007, Gould et al. 2008, Foster 2009, Goodman 2011, Salleh 2011).

was expected to have a substantial impact on jobs associated with highly polluting industries, driving a shift towards employment in less environmentally damaging industries. A prominent green jobs policy agenda was not developed by the Labor government, however, until the global financial crisis at the end of 2008.

It was within this economic and ecological milieu that the concept of green jobs emerged as an important element in the solution to global economic and ecological concerns. Political leaders and governments from around the world announced stimulus packages, totalling \$US430 billion, which promised to help kick-start economic growth, green job creation and build the low carbon sustainable economy of the future (HSBC Global Research 2009:2). Within Australia the most visible promotion of a green jobs agenda within the government's economic stimulus package was a \$2.7 billion home insulation program (HSBC Global Research 2009:14). According to the then Prime Minister Rudd, the scheme was designed '[t]o support jobs and set Australia up for a low carbon future' (2009). The policy was reactive, short term, accommodating of economic interests and aimed at remedying or adapting to ecological decline to maintain and enhance economic growth rather than preserving nature. In the space of nine months the Labor government also announced a number of other environmental policy commitments, in the form of \$6.2 billion to 'A New Car Plan for a Greener Future' program, a program for 50 000 new green jobs, traineeships and apprenticeships, funding commitments to renewable energy programs such as the solar homes and schools policy, and the establishment of a green loans program, which provided free home sustainability assessments and interest free loans to purchase energy saving technologies. The government also announced in the 2010 Federal election that it would establish a 'cash for clunkers' program to promote the purchase of greener vehicles.

The green jobs that the Rudd/Gillard government's environmental policy agenda sought to create largely sit within Crowley's light green job category. The policies were motivated by and reactive to economic circumstances, rather than originating from environmental concerns. Direct responsibility of implementing the programs was largely left to the market. Many of the policies were one-off programs or received short-term budgetary funding, while some of these green job programs supported established industry which had been retrospectively classified as green. This light green approach shows that the Australian

government has largely focused on remedying the impact of the first production of nature, rather than seeking the development of the second production of nature and the associated mid green jobs. Critically, green job policies aimed at enhancing and accommodating economic growth are consistent with policy approaches taken by successive Australian governments over the last twenty years (Crowley 2001).

#### **Recent Developments**

During 2010-11 even the light green jobs agenda has been deferred or abandoned. This process began with the axing of the home insulation program, after it experienced a number of serious issues relating to health and safety. The Labor government then delayed and later abandoned its Emission Trading Scheme, only to subsequently announce a fresh carbon tax/ETS to be implemented by the middle of 2012. The proposed new policy, unlike the Rudd ETS, is expected to have a fixed price (tax) on carbon emission for the first three to five years before moving to a permit-based ETS. More recently the Gillard government, in response to the disasters in Queensland, abolished or cut funding to a number of climate change and green industry programs. This included the Green Car innovation fund and the 'cash for clunkers' program, representing a funding cut of over \$650 million to green car initiatives. Approximately \$500 million in funding for a range of solar programs was also cut, although the Australian Greens did secure \$100 million in solar funding in exchange for supporting the government's Queensland flood levy. Funding for the Green Start program, a replacement of the Green Loans program, was also abolished, while investment in carbon capture and storage was also reduced.

Although many of the abandoned policy initiatives plainly reached for the light green 'low hanging fruit', they did represent an increased level of commitment from the government to green jobs and the environment not previously seen within Australian public policy. The re-commitment to an ETS also points to a policy agenda that seeks to engage with dimensions of the second capitalist production of nature. Indeed, Prime Minister Gillard told Parliament on the day the government announced its new ETS/Carbon tax that 'we are determined we will have a prosperous, low pollution economy of the future. We are determined that we will have the jobs of the future' (2011:50). What is ironic about this policy rhetoric is that money has been slashed from green programs, which were supposed to help establish the low carbon economy of the future, to fund a rebuild of flood damaged Queensland infrastructure, much of which is associated with mining, particularly coal exports. The Gillard governments carbon tax/ETS, whatever its faults, may potentially lead to a substantial growth of 'mid green' jobs. Significantly, though the government has failed to spell out the considerable job implications of the policy, and has instead focused on issues of economic compensation to households and industry. The government's commitment to green jobs and industries evidently runs a poor second to the maintenance of economic growth and established polluting industries.

The limited push to promote green jobs has a number of important consequences for both labour and the environment. It legitimises capital accumulation through environmental protection by embedding solutions to environmental problems within the current structure and processes of capitalism. This leads to an outcome whereby the fusing of labour and the environment continues to be founded on the exploitation of labour. Fundamentally, the present green jobs agenda and the greening of capitalism reinforces the destructive treadmill of production, rather than questioning the power of capital or the organisation and production of labour. The solution of fusing labour and the environment within the current structure of capitalism brings into question whether or not green jobs can actually lead to a sustainable relationship between labour and the environment.

### The Challenge for Unions

The future of employment, working conditions and the types of work people will undertake depends significantly on responses to environmental challenges such as climate change. The fusing of labour with environmental protection is therefore a significant and relevant challenge for labour unions. It has resulted in a diversity of positions ranging from positive engagement to resistance and suspicion. This range in positions can be examined using Crowley's green jobs typology.

The potential benefits of green jobs and industries to workers and the community in Australia has been promoted by the ACTU, in tandem with the Australian Conservation Foundation (ACF) since the early 1990s (see for example: ACF & ACTU 1994). The ACTU understands

that its role as the peak union body is to ensure that any ecological transformation of Australia's economy is a positive change for workers and their families. In 2008 the ACTU and ACF released a report entitled 'Green Gold Rush', which argues that green industries could create approximately 500 000 jobs by 2030, and build the foundation for Australia's future economic prosperity. According to this report, the potential for a 'Green Gold Rush' relies on the implementation of three broad strategies. First, the state should develop and facilitate a long term environmental industry framework; second, the state needs to implement an environmental market, such as an Emission Trading Scheme (ETS), while also strengthening industry codes and standards; and third, there must be an increased investment in environmental research, technologies. skills and training (ACF & ACTU 2008:4). These strategies are also reflected in the ACTU's 'Environment and Climate Change Policy' (2009a) and clearly align with Crowley's mid green typology. However, the ACTU's commitment to a mid green policy agenda is 'muddied' by its institutional and political alignment with the Australian Labor Party. This can be seen in the ACTU's regular support, or confinement to, policy positions which are not at odds with the current Australian Labor government's light green jobs agenda. For example, the ACTU has been supportive of the Labor government's failed Carbon Pollution Reduction Scheme (2009b) and Labor's 50,000 green jobs, traineeships and apprenticeships program (2009c). The ACTU appears to take a strong mid green approach but in reality is often confined to supporting policies more closely associated with Crowley's light green jobs typology.

The argument that environmental challenges are an opportunity for labour unions and its members is encouraged by the Australian Manufacturing Workers' Union (AMWU) and outlined in its report Making our future: Just Transitions for climate change mitigation (2008). The AMWU's positive disposition toward green job opportunities and industries can also be understood to be about self-preservation, in a context where manufacturing and employment in manufacturing has significantly decreased in Australia over the last twenty five years (Australian Bureau of Statistics 2006). The AMWU sees environmental challenges as a crucial opportunity for industry renewal and growth. However, unlike the ACTU, the AMWU is critical of what it sees as an '[o]ver-reliance on market mechanisms', and instead calls for 'interventionist policies' which protect the interests of workers and the environment (2008:3). According to the AMWU's report, such

interventionist policy should include: assistance to re-tool existing manufacturing industries; income support for workers affected by environmental policy; the right for unions to negotiate environmental responsibility into labour contracts; and the adoption of a carbon tariff on imports to Australia (2008:20-1). The AMWU therefore proposes that the state and unions develop strategies which equitably transition existing work roles to green job industries with significant job growth potential. This approach is linked to the idea of a 'Just Transition' developed by the Canadian Labour Congress, which argues for 'a social climate change agenda focusing on developing a multi-levelled labour voice in the green transformation of jobs and work, with labour and community actively involved in planning, deciding and operationalising all phases' (Lipsig-Mumme 2008:7). This approach aligns more closely with Crowley's mid green typology; with the AMWU proposing that the state and unions transition existing work roles to green job industries. It implies that future economic environmental prosperity is possible if Australia transitions to green capitalism.

The approach taken by the AMWU to environmental challenges is not shared across the Australian union landscape. Opposition has primarily arisen around the potential consequences for existing jobs in ecologically destructive industries such as forestry, mining and construction and in emissions-intensive, trade exposed (EITE) industries such as steel production. The Australian Workers Union (AWU), which has strong representation in the mining and EITE industries, is one union which is fearful about the impact of fusing labour and the environment. AWU's approach to climate change has been characterised as, 'sceptical about mitigation and silent about adaptation' (Lipsig-Mumme 2008:6). This is evident in the AWU's position paper on climate change (2008). which argues that any moves to reduce greenhouse gas emission could undermine the interests of its members and the industries in which they work. The AWU therefore recommends that workers and corporations involved in EITE be protected against environmental policies through compensation; that Australia must not act before other nation states; and that the only sensible solutions to climate change are market based policies and technological fixes that enhance Australia's economic growth (2008). This has seen Paul Howes, AWU National Secretary, argue that Australia can profit from the world's need to reduce carbon emissions by extracting Australia's vast uranium and natural gas deposits to become 'an energy superpower' (2009). Howes has also strongly

advocated technological solutions, arguing that the 'building of CCS [carbon capture and storage] technologies and nuclear power facilities...will form the portfolio of our salvation' (2009). The AWU's approach to green jobs at best aligns with Crowley's light green jobs typology as it insists that the interests of workers and the environment accommodate and conform to the continued operation of highly polluting fractions of capital. The AWU is therefore primarily focused on ensuring that the current interests of workers and industry are protected against any potential responses to environmental problems which threaten their livelihoods. Such an approach also provides a clear illustration of the way in which competition between capitals and groups of workers undermines the fusing of labour and the environment.

The Construction Forestry Mining Energy Union (CFMEU) represents a range of sectional interests which have conflicting environmental For example, the forestry division of the CFMEU has regularly opposed environmental actions and alliances (Bramble 2008:206) and is also strongly supportive of projects such as the Gunns pulp mill in Tasmania (CFMEU Forestry & Furnishing Products Division 2010). The mining and energy division of the CFMEU has, however, been a long time supporter of action on climate change and a 'greening' of existing industries (Rafferty & Yu 2009:23-6). Paradoxically, the mining and energy division has also promoted the need for the maintenance and expansion of ecologically destructive industries such as coal mining (Evans 2007:183). The CFMEU therefore rejects calls to phase out the usage of fossil fuels such as coal, labelling it 'wellintentioned naiveté' (Maher 2009a:1). The CFMEU argues that 'the phase-out option would require the ending of the nation's most successful and valuable export industry, and would inflict immense social costs' (2008:12). Strong criticism of the concept of green jobs has also come from Tony Maher, CFMEU president and chair of the ACTU climate change group. Maher has labelled the notion of a green job 'dopey' arguing that '[c]oalmines aren't going anywhere. Power stations aren't going anywhere...A coalminer or a power station worker isn't going to leave their job...to install low-wattage light bulbs or insulation' (Maher 2009a:6).

There are, however, regional variations within sections of the mining and energy division of the CFMEU, with some sectors strongly supportive of a mid green or progressive transition away from polluting industries. For instance, the Earthworker Social Enterprise Association (ESEA) in

Victoria's La Trobe Valley is seeking to create green jobs through the manufacture of solar hot water units under a social co-operative arrangement (Lord 2010). The initiative consists of diverse cross-class alliances between the Mining and Energy section of the CFMEU, the ESEA, the Gippsland Trades and Labour Council, local business, environmental groups, the National Party and the State Victorian government (Lord 2010). The program hopes to create a working example of long-term manufacturing jobs 'linked to environmental sustainability' and is aiming to commence in July 2011. This effort to create green jobs provides an interesting test case as the La Trobe Valley region is strongly centred on coal based mining and electricity generation, industries that face an uncertain future, given the environmental challenge of climate change. Butcher and Stilwell (2009:17) also note a similar program that has been developed in the Illawarra region of New South Wales by the South Coast Labour Council, academics from the University of Wollongong and the NSW State Government.

There are clear contradictions within the CFMEU as to how the union should respond to the challenge of fusing labour and environmental protection, and such division needs to be kept in mind when noting the position of the CFMEU. In spite of such divisions, the CFMEU's general approach aligns most closely with Crowley's mid green typology. The CFMEU is strongly supportive of technological solutions to green the existing jobs of its members and their industries, as demonstrated by the its strong advocacy of carbon capture and storage technologies (CFMEU Mining & Energy 2007). The rejection of the green job label by CFMEU president Tony Maher is therefore not a rejection of green jobs, but is centred on the belief that existing jobs and industries can be ecologically restructured, simply by attaching new 'skills to existing trades to cope with new developments' (Maher 2009a:6). The CFMEU evidently believes that the real challenge within the new political economy of green capitalism is to ensure the interests of workers via the continued operation of existing trades and industries.

Green jobs are a complex challenge for unions. Any action to protect the environment is likely to create winners and losers within differing sections of the workforce and within differing sections of the union movement (Pearce & Stilwell 2008:124-5). There is evidence that many of the new jobs within green industries are low wage, low skill and non-unionised (Masterman-Smith 2010, Ross 2010). Understandably,

communities and labour unions involved within highly polluting industries are fearful that strong action on climate change will have a particularly harmful effect on unions and the livelihoods of workers. replicating some of the social upheaval experienced in Newcastle and the Latrobe Vallev in the 1990s<sup>4</sup>. This lends itself to the rather bleak assessment (noted earlier by Bramble) that unions are compelled primarily to defend workers' interests within the existing system, giving them little scope to strive for change.

Fusing labour with environmental protection is also a difficult challenge for the union movement and its members, as the perceived threat of a green jobs agenda and job preservation are used to create opposition to any environmental action. The potential for workers to be the 'losers' has been emphasised and played upon by highly profitable polluting fractions of capital referred to by Pearse (2007) as 'the carbon lobby' or the 'greenhouse mafia'. For example, the Minerals Council of Australia (MCA) commissioned a report which claimed that proposed government actions on climate change would result in the loss of 24 000 mining jobs by 2020 (Taylor 2009:1). Similarly, the Australian Coal Association (ACA) launched an advertising campaign with the slogan 'let's cut emissions not jobs'. The likelihood of job losses has also been raised by the Federal Opposition and by sections of the Australian media. Potential responses by the Australian union movement to the environmental crisis are further complicated by those that oppose any moves which may slowdown the ecologically destructive treadmill of production.

Given such complexities, what role can unions play in moving from light green to deep green solutions? Lessons may be drawn from the Rudd government's home insulation program. As an economic stimulus it was moderately successful, creating short term jobs, boosting output and generally increasing the energy efficiency of hundreds of thousands of Australian homes. It was easy for unions to support it. The policy boosted an existing small scale green industry with a low skill and technology base, which is not exposed to international competition or

<sup>4</sup> The City of Newcastle 'went into a period of financial decline after BHP closed its steelworks a decade ago' (Lewis 2008:10). While the La Trobe Valley in Victoria experienced significant increases in unemployment and social problems when electricity utilities where privatised by the state government in the early 1990s (Rainnie et al. 2004, Cahill & Beder 2005:18).

imbedded within global markets. Expansion of the insulation industry did not harm the economic interests of other Australian industries and nor did it place union interests in competition with each other. The response of unions like the CFMEU to the home insulation program was to see it as creating 'important additional jobs' (Maher 2009b). The Australian union movement failed to raise any concerns about the long term future of the green jobs created by the policy initiative or how workers involved within the insulation industry may be transitioned to other green industries. The union movement's failure to engage these issues may be linked to the micro size of insulation operators and a workforce that was unlikely to be easily unionized. Indeed, the issue of unionizing the emerging green workforce will be a major challenge for unions.

#### Conclusion

The growing interest in promoting green jobs in Australia has yet to break out of the constraints of being 'light green' in character, lacking long term direction, and operating within the current processes of the 'first' capitalist production of nature. Unions have rightly criticised the Rudd/Gillard government's short sighted green job policy agenda, particularly the home insulation program. However, their response to broader environmental problems and the potential solution of green jobs has so far been unquestioning of the continued operation of the treadmill of production and the purpose of human labour within the treadmill. The AWU is supportive of the continued expansion of highly polluting industries, the AMWU and ACTU see green jobs as a growth and industrial renewal opportunity, while the CFMEU deviates between supporting green jobs and the expansion of polluting industries. The diverse positions within and between unions undoubtedly reflects the difficult and paradoxical choices that union leaders and members face. Nevertheless, the solution of fusing labour with ecological sustainability needs to be much more than a process of adaptation. It is unlikely to succeed unless it confronts the ecologically unsustainable social relations of capitalism and is integrated into the broader processes of class struggle and the redress of social inequality. The labour movement should therefore take the opportunity to push the current promotion of green jobs in a progressive direction by confronting how nature is 'produced', why and for whose benefit.

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