From Jobs to Green Jobs: A Just Transition Framework

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1. INTRODUCTION

Jobs in a Climate Hotspot
The Global Climate Risk Index where the Philippines ranks 4th is a serious cause for concern as it indicates the country’s high vulnerability to climate change impacts. That climate change impacts on the economy, human lives, cultural heritage, ecosystems and consequently impacts on jobs are evidently clear.

However, in a country where jobs or the lack of jobs remain a compelling issue, the reference to green jobs is often regarded as an incongruity. This mind-set is driven largely not by the absence of green jobs but by the unexamined link of climate change and jobs, the lack of evidenced-based research and an unarticulated policy framework on the same.

The Policy Imperative
Sustaining a constructive labor policy against the backdrop of climate change will require a new approach. As work, the workforce and workplaces bear the brunt of the change, the lack of strategy that responds effectively to risks and opportunities brought about by climate change is not advancing the goals of job creation and risk reduction. The purpose of this report therefore is to suggest a strategy that integrates labor and employment concerns with climate change considerations.

Such strategy must include four components. A new narrative is essential to explain the role of climate change to DOLE constituencies. A comprehensive green jobs agenda will be needed to enable the Philippines to reap the full advantages of adaptation finance and international resources available. A new adjustment policy to facilitate the transition of this green dynamic is imperative. A green jobs policy will be necessary as well.

Objective of the Paper
The purpose of this paper is to contribute to reducing the enormous conceptual deficit on green jobs by a rapid examination of the issue from the Philippine perspective. Essentially, the practical contribution of this paper is to derive an organizational strategy so that the DOLE can match its actions with the same seriousness the climate change risk poses.

The structure of the paper is as follows: Firstly, the connection of climate change solutions and jobs creation is examined, green jobs are defined and transition scenarios are discussed. Secondly, green jobs snapshots are presented to elaborate on this connection. Thirdly, policy principles for the effective implementation of the just transition framework highlighted. Fourthly, a DOLE climate-smart response is outlined. Finally, the conclusions and implications for research and practice are presented.
2. LINKING CLIMATE SOLUTIONS AND JOBS

Climate Solutions
Climate change, synonymously referred to as global warming, is mostly presented as a physical event – higher temperatures, extreme weather events, rising sea levels and destruction of biodiversity - normally framed in dismal terms. As this physical event will in turn affect other ecosystems and human systems such as buildings, industrial processes, transportation, energy supply and demand and infrastructure, solutions to avert or minimize the risk are deemed imperative.

Solutions normally come as a combination of adaptation and mitigation measures. Adaptation involves taking action to reduce the risks posed by climate change to peoples' lives and livelihood. Examples of adaptation include defending against rising sea levels through better flood defenses and changing patterns of land use like avoiding more vulnerable areas for housing. In the case of extreme weather variability, adaptation can mean focusing on planting crops that are able to face greater variability in weather conditions or shifting to non-farming activities.

Mitigation involves taking action to reduce greenhouse gas emissions through reducing energy use and switching to cleaner energy sources. With energy as a core focus, mitigation measures refer to solutions in energy efficiency, renewable energy, recycling, building restoration and regeneration or public transportation, water management, harvesting, wind and solar energy production and bio-energy.

Table 2.1 Differentiating Climate Solutions

<table>
<thead>
<tr>
<th>Solution</th>
<th>Objective</th>
<th>Term</th>
<th>Type of Action</th>
<th>Nature of risk</th>
<th>Areal/Sector Appropriate</th>
<th>Sector Prevalent</th>
<th>Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptation</td>
<td>To reduce risk</td>
<td>Short/ Medium</td>
<td>Reactionary/ Anticipatory</td>
<td>Clear and Present</td>
<td>Climate Sensitive</td>
<td>Non-Energy</td>
<td>Physical Risk</td>
</tr>
<tr>
<td>Mitigation</td>
<td>To reduce GHG</td>
<td>Medium/ Long</td>
<td>Anticipatory/ Substitutionary</td>
<td>Potential &amp; Probable</td>
<td>Carbon Producing</td>
<td>Energy</td>
<td>Energy Policy/ Technology/ Subsidies/ Competitiveness</td>
</tr>
</tbody>
</table>

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From Jobs to Green Jobs: A Just Transition Framework
However, solutions are not only about reducing potential risks but also about seeking opportunities as well. For instance, the construction industry in some locations may face disruptions to construction sites and the delivery of materials as a result of extreme weather events that cause damage to transportation infrastructure. It may adapt by changing its sourcing system by shifting from importing materials to using local ones. Conversely however, climate change may provide opportunities for this industry. It can explore the new product markets such as climate proofing materials, solar panels and weather resistant building designs.

As solutions to offset the downside caused by climate change are sought or opportunities presented are seized, the economy inevitably now shifts to new patterns of production, consumption and investments. Consequently, shifts to new patterns of employment are expected as well.

**Green Jobs Defined**

Investments in *transitioning the economy* away from carbon-intensive energy, minimizing degradation of our natural resources, maximizing the efficient use of our natural capital and protecting humans and the planet from pollution and waste give rise to a *new demand for labor*. These green investments as they are called are expected to create measurable impacts on employment as these now become the source of new *green jobs*.

**Table 2.2  Jobs Vs. Green Jobs**

<table>
<thead>
<tr>
<th></th>
<th>Job</th>
<th>Green Job</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>An activity that a person does for a living. (BLES)</td>
<td>An activity that a person does for a living. The activity is a result of a climate solution (adaptation or mitigation).</td>
</tr>
<tr>
<td>Driver</td>
<td>Substance</td>
<td>Substance, Systems and Sustainability</td>
</tr>
<tr>
<td>Scope</td>
<td>Work</td>
<td>Work, Workplace, Workforce</td>
</tr>
<tr>
<td>Perspective</td>
<td>Individual</td>
<td>Social Ecology</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Economic/ Social</td>
<td>Environmental, Economic, Social</td>
</tr>
<tr>
<td>Range</td>
<td>Near term</td>
<td>Long view</td>
</tr>
<tr>
<td>Coverage</td>
<td>Partial</td>
<td>Universal</td>
</tr>
<tr>
<td>Nuance</td>
<td>Linear</td>
<td>Sigmoidal</td>
</tr>
</tbody>
</table>

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Green jobs are not a new set of specific job classifications. Rather, they refer to *person-hours* involved, representing a broad category of work to be done in a range of productive activities in realizing the new clean economy transformation.

Neither are green jobs "environmental industry" jobs or "green collar" jobs. Rather, a green job is an activity that is a *result of a climate solution*.

As person-hours refer to actions that result from a climate solution that visibly affect *work* (product, service, process), *workplaces* (contained or open environs)
and the workforce (demand for and supply of labor), the environmental facet is not solely indicated. Rather, the economic and social facets are inextricably intertwined in the environmental activity, rendering green jobs a combined systems, substance and sustainability issue.

Figure 2.1 The Green Jobs Triple

With climate change therefore as an underlying framework of all development efforts, all jobs in the future—whether white, blue or brown—will expectedly be all green.

**Transition Scenarios**
Because the transition to the new clean economy represents a new stream of investments, the impact will be broadly felt in many sectors. As the jobs impact will essentially mirror the sectoral impact, the demand for green jobs will vary. As risks and opportunities are not equally apportioned, a manifold transition scenario may include the following:

*New jobs to be created* most likely pertain to jobs referred to as new “green-collar” occupations that emerge to support adaptation to and mitigation of climate change. (Ex. Jobs providing support and servicing of solar, wind and other renewable energy technologies.)

*Imperiled jobs to be saved* most likely will be found in the fossil fuel energy and other energy intensive sectors such as steel, iron, aluminum, cement or services as in road transport. These may also include jobs in the climate sensitive sectors like agriculture, forestry and fisheries and tourism. Further, these cover jobs in the industries which by their very nature are directly impacted because of structural changes in the economy. (Ex. Newspaper publishing at is at risk as online subscription is slowly becoming the trend.)
Traditional jobs to be transformed refer to everyday jobs that are repurposed and expanded. The skills required for existing jobs will have a stronger green element as existing occupational profiles change. (Ex. Manufacturers learning new technical skills to reduce carbon emissions from production.)

Transition Issues
The transition to a sustainable low-carbon economy is not without its difficulties as it will involve major shifts in employment, skills sets and workplace practice. Over the coming decades, climate change will affect jobs – either directly, through changing conditions for sectors such as agriculture, fisheries and forestry – or indirectly, thru mitigating measures adopted in the restructuring towards the new clean economy.

Adaptation
Given that poverty severely constrains capacity to adapt to climate change, the vulnerability of 27.6 million Filipinos living below the poverty line (2006 Poverty Statistics) will be exacerbated. That the environment is their only form of social security (Acosta 2009) renders strengthening the adaptive flexibility of the poor a primary adaptation objective. Some of the most at-risk people include subsistence farmers, indigenous peoples and coastal populations. As adaptation and disaster risk reduction overlap by 75% (Salceda 2008), the bulk of adaptation programming and finance should address the different categories in the poverty continuum.

Also at risk is the significant number and variety of small and medium enterprises and the large and diverse people under its employ. For regions and sectors based on agriculture, agriculture livelihoods are visibly threatened. In services, particularly impacted would be human resource productivity in agriculture-related enterprises. The industry sector, as its supply of energy and raw materials as well as the integrity of support infrastructure and logistics are affected at various stages of the value cycle, will likewise be compelled to adapt.

A green jobs adaptation strategy therefore may require an understanding that vulnerabilities and adaptation options will vary according to the nature, scale and vulnerability of different economic segments as regards climate change. Understanding the impacts will require inter-relating physical science with socio-economic information. Knowing the geography and the context of vulnerability is necessary in order to formulate a concrete plan of action that will align poverty reduction and employment creation with a broader set of investments in environmental conservation and rehabilitation.

Mitigation
In 1994, the Philippines released a total equivalent amount of 100,738 ktons of CO2 into the atmosphere. This is due to the combined effects of GHG emissions from four sectors of Energy (49%), Agriculture (33%), Industry (11%) and Wastes (7%) and the net uptake (sink) of GHG from the Land Use Change/Forestry Sector (0.1%). In the global context, this national amount is
minimal relative to GHG emissions other nations. However, given that carbon is a global commons issue, the case for mitigation remains essential.

The energy sector’s agenda on attaining a sustainable 60% energy self-sufficiency beyond 2010 will require the following: accelerating the exploration, development and utilization of indigenous energy sources; intensifying renewable energy resource development; increasing the use of alternative fuels; and enhancing energy efficiency conservation.

Combined with the efforts of the rest of the sectors- industry, agriculture and waste - in accounting for their emissions and identifying strategies to reduce such emissions, the potential for new jobs to be created is said to be tremendous.

A green jobs strategy that will propel the move to a low carbon economy will place premium on creativity and innovation and put the general economic pressure for higher level skills and risk management strategies - all of which need to be better understood if the Philippines is to capitalize on arising opportunities.

3. GREEN SNAPSHOTS: SOME RESPONSES TO CLIMATE CHANGE

The Institute for Labor Studies in September 2008 conducted a Working World Triadogue entitled “Green Jobs: Working with Climate Change” to rapidly assess what climate change solutions are being implemented and how jobs are incorporated as a key component in the change initiatives.

In particular, the material comprises ten (10) caselets across a range of sectors: an international organization, national government organizations, local government units, industry, professional organizations and an informal sector cooperative.

**Key Climate Change Drivers**
The key climate change drivers for the respondents were as follows:

*Mandate.* For some respondents, the main driver related to their organizational purpose and authority. This was particularly true for the department of Energy and the Department of Environment and Natural Resources and the International Labor Organization. Their initiatives were considered feasibly strategic and politically feasible.

*Social responsibility.* For industry and local government units, the driver was the social contract which they felt should be rewritten to include the green component as “it is the right, good and smart thing to do”.

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Physical effects of climate change. For the Province of Albay inarguably an extremely high risk area, the yearly damage to lives, property and livelihoods brought about by climate change was a primary driver.

Competitiveness. Industry sources, local government units and the informal sector saw that taking action on climate change was becoming a source of competitive advantage.

Key Actions
The key actions taken by the various respondents included the following:

Engaging with the policy process
- Facilitate a just transition that reflects the environmental, economic and social pillars of sustainable development
- Search for financing mechanisms to support local and sectoral initiatives
- Explore market based incentives
- Target subsidies to lower costs for power generation using solar, wind and other clean technologies
- Push for investments in local energy sources such as oil, gas and coal
- Launched the first and pioneering prototype for local climate change adaptation A2C2
- Environment imbedded in school curricula
- Advocates of the Ecological Solid Waste Management Act

Working in partnerships
- Promotion and commercialization of renewable energy technologies
- A venue to develop a nationally accepted and recognized green building rating standard
- Forum for the discussion of issues toward the development and sustainability of the rating standard

Social dialogue
- Promote social awareness and dialogues
- Hosted first ever National Conference on Climate Change Adaptation

Actions to reduce conceptual deficits
- Identify and respond to knowledge gaps
- Creation of a renewable energy and alternative energy knowledge center

Actions to reduce climate vulnerability
- Forestry conservation and minerals development

Actions to increase energy efficiency
- Promote the use of renewable energy and alternative fuels
- Creation of a one stop shop for sustainable energy projects
- Implementation of the Clean Development Mechanism
• Created a model for pollution reduction development via the Motalban Solid Waste Disposal Sanitary Landfill and the First Motalban Methane Power Plant

Actions to improve the sales of greener products
• Investments in organic farming
• Implements the Toyota Green Plan, Green Purchasing and Green Dealership Program
• Recycling project helped reduce waste and has grown an export business from waste

Impacts On Jobs and Skills
The employment perspective discussed by the respondents were limited to the following:

The main direct employment impacts identified were:
• 200 workers employed by KILUS
• Workers employed in the operation of alternative energy technologies and equipments in Motalban

Future jobs and skills were most likely when:
• New building standards are rolled-out
• New green buildings are constructed and existing structures retrofitted
• Investments in the renewable and alternative energy sectors materialize
• Investments in local food systems and organic farming are pursued

The DOLE Imperative

Based on the assessment of the caselets presented, while the climate solutions presented were exemplary, there was not much emphasis on the effects of climate change on work, workplaces and the workforce. The challenge for DOLE therefore is to engage the climate change policy drivers from a place of leadership with a clear strategic direction to derive a new climate change narrative that is singularly DOLE.
<table>
<thead>
<tr>
<th>Sector</th>
<th>Mandate/Function/Task</th>
<th>Key Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTERNATIONAL ORGANIZATION</strong></td>
<td>ILO Green Jobs Initiative to promote policies to achieve decent green jobs and green workplaces</td>
<td>• Promote social awareness and dialogues</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identify and respond to knowledge gaps</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Facilitate a just transition that reflects the environmental, economic and social pillars of sustainable development</td>
</tr>
<tr>
<td><strong>NATIONAL GOVERNMENT EXECUTIVE BRANCH</strong></td>
<td>Effective governance of the Philippine climate change response</td>
<td>• Search for financing mechanisms to support local and sectoral initiatives</td>
</tr>
<tr>
<td>Presidential Task Force On Climate Change</td>
<td></td>
<td>• Explore market based incentives</td>
</tr>
<tr>
<td>Department of Energy</td>
<td>To attain the best energy mix to ensure a stable, secure, sustainable, environment friendly and reasonably priced energy</td>
<td>• Promote the use of renewable energy and alternative fuels</td>
</tr>
<tr>
<td>Department of Environment and Natural Resources</td>
<td>Environmental conservation and rehabilitation</td>
<td>• Creation of a one stop shop for sustainable energy projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Creation of a renewable energy and alternative energy knowledge center</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Push for investments in local energy sources such as oil, gas and coal</td>
</tr>
<tr>
<td><strong>LOCAL GOVERNMENT UNITS</strong></td>
<td>Albay in Action in Climate Change (A2C2)</td>
<td>• Launched the first and pioneering prototype for local climate change adaptation A2C2</td>
</tr>
<tr>
<td>Province of Albay</td>
<td></td>
<td>• Environment imbedded in school curricula</td>
</tr>
<tr>
<td>Municipality of Rodriguez, Rizal</td>
<td>Major player among independent power producers</td>
<td>• Hosted first ever National Conference on Climate Change Adaptation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Created a model for pollution reduction development via the Motalban Solid Waste Disposal Sanitary Landfill and the First Motalban Methane Power Plant</td>
</tr>
<tr>
<td><strong>INDUSTRY SECTOR</strong></td>
<td>Toyota Earth Charter</td>
<td>• Implements the Toyota Green Plan, Green Purchasing and Green Dealership Program</td>
</tr>
<tr>
<td>Toyota Motor Philippines</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PROFESSIONAL ORGANIZATIONS</strong></td>
<td>Non-stock non profit organization committed to national development, promotion, utilization and commercialization of renewable energy technologies/ systems</td>
<td>• Promotion and commercialization of renewable energy technologies</td>
</tr>
<tr>
<td>Renewable Energy Association of the Philippines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philippine Green Building Council</td>
<td>Non-profit organization that promotes the sharing of knowledge on green practices in the real property industry to ensure a sustainable environment</td>
<td>• A venue to develop a nationally accepted and recognized green building rating standard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Forum for the discussion of issues toward the development and sustainability of the rating standard</td>
</tr>
<tr>
<td><strong>INFORMAL SECTOR</strong></td>
<td>Cooperative organizing livelihood opportunities for its women members</td>
<td>• Advocates of the Ecological Solid Waste Management Act</td>
</tr>
<tr>
<td>KILUS Multi-Purpose Environment Cooperative</td>
<td></td>
<td>• Thru a recycling project, helped reduce waste and has grown an export business from waste</td>
</tr>
</tbody>
</table>
4. MANAGING THE GREEN SHIFT

There is nothing intrinsically just about the process of or the end result of becoming green as the unequal distribution in causes and impacts underpins a justice dimension. As evidenced by the ten caselets, a just transition involves a conscious decision to fully integrate the social dimension into the economic and environmental dimensions, a decision that may require firm political action.

The Just Transition framework as reflected in the on-going work of ILO is structured around a principle and a goal. The principle holds that the costs and benefits of transition should be shared widely across society. The goal is to simplify this principle at the level of policy.

Thus, at level of policy, this section develops the rationale and recommendations in the form of eight strategic priorities. These strategic priorities provide the guidelines for all affected parties so that decisions as regards green jobs, given current conditions, can unravel in a just and constructive manner.

Figure 4.1 Green Jobs Eight Strategic Priorities

These eight strategic priorities so a just transition is possible given the current green jobs policy and program scenario are as follows:

- Building knowledge assets
- Targeting green sectors
- Setting standards
- Maximizing community benefits
- Linking green job creation and job training
- Partnering towards building adaptive capacity

From Jobs to Green Jobs: A Just Transition Framework
• Emphasizing a strong pathways out of poverty focus
• Measuring results

A key message and a set of policy principles that are expressed in the form of achieved outcomes support each of the eight strategic priorities.

**Strategic Priority 1 Building Knowledge Assets**

*Key Message:* The enormous conceptual deficit on green jobs will have to be narrowed thru a national labor market research, information and labor exchange initiative. However, as a climate hotspot with adaptation as the more prominent strategy, a pro-poor slant to such initiative will ensure that the costs and benefits of climate change for the poorest and most vulnerable people are primarily considered.

**Effective Implementation of this strategic priority depends on applying these policy principles:**

1.1 Research coalesces around determining what kind of climate change actions best fit with national circumstances, interests and priorities.

1.2 Key stakeholders have better-developed level of knowledge and expertise enabling them to be directly involved in national and regional debates on disaster risk mainstreaming strategies or on long-term emission reduction scenarios.

1.3 Tools such a vulnerability assessments, risk screening approaches and carbon footprinting emissions reductions and offsetting strategies are available and widely used.

**Strategic Priority 2 Targeting Green Sectors**

*Key Message:* The green sector is a heterogeneous spectrum of activity which calls for a strategic plan to identify which industries/sectors should be targeted for support based on their highest potential to develop and grow or based on their vulnerabilities and high risk assessment.

**Effective Implementation of this strategic priority depends on applying these policy principles:**

2.1 An environmental cluster that promotes firm-to-firm interactions, centralize market transactions and include incubator activities is operative.

2.2 Interaction between formal and informal institutions to promote the positive effects of agglomeration is intense and constant.

2.3 A coordinated effort to promote and increase public awareness about suppliers of green goods and services to increase visibility of sector to generate demand and lower cost of information to potential buyers is operational.

**Strategic Priority 3 Setting Standards**
Key message: All reforms on green jobs are geared towards solutions to reduce risk of harm or realize benefits associated with climate change as it affects work, the workforce and workplaces. To set standards for such reforms is a particularly difficult task which has to be tackled realistically given geographic and sectoral variability.

Effective Implementation of this strategic priority depends on applying these policy principles:

1. The framework for the development and enforcement of standards is set by the government.

2. The standards are developed in consultation with social partners and scientific or other relevant expert bodies.

3. All parties observe and implement standards based on a compliance plan spelling out how compliance will be achieved with relevant criteria and guidelines specifying binding arrangements for project-specific technical, social and environmental commitments.

4. Carbon pricing is an increasingly important element in the standards framework.

5. All forms of decision support instruments (codes of practice, social audit, international conventions, certification, sector guidelines, operational policies, impact assessments, process guidelines, technical standards, ISO standards, social and environmental policies, regulations and practice) incorporate green jobs as a component.

Strategic Priority 4 Maximizing Community Benefits

Key message: As green jobs are intrinsically local, the community becomes a core unit in a green jobs endeavor. Collective action initiated by the public sector is needed to capture the benefits of agglomeration and create the networks required to tap knowledge, formulate policies and programs and coordinate key stakeholders.

Effective Implementation of this strategic priority depends on applying these policy principles:

1. Governance structures at all levels that ensure that communities most vulnerable to climate shocks and stresses are able to engage in and benefit from adaptation and disaster risk reduction programs are present.

2. Public policies that drive new capital investment into greening local communities, driving growing demand for both skilled and entry level jobs and new demand for business services are offered.

3. Traditionally marginalized population and small business receive specific support from government to ensure their inclusion in the many opportunities ahead.

4. Community benefits plan formulated to ensure green growth occurs without leaving behind those individuals that would benefit most from such development.
Strategic Priority 5 Linking Green Job Creation and Job Training

**Key message:** The greening of the economy will lead to a redefinition of many jobs across almost all sectors— with new performance and skills requirement Meeting skills needs is crucial for productivity, employment growth and development.

**Effective Implementation of this strategic priority depends on applying these policy principles:**

5.1 Government, educational institutions and business understand new environmental trends and actively support the development of green skills.

5.2 Skills development and worker training, including apprenticeship and pre-apprenticeship training for job readiness is available to workers to enable them to participate in the green jobs market.

5.3 Workforce training programs, certification programs, matching programs and incentives are available to local small business.

5.4 Financial/tax incentives for renewable energy companies which absorb and train unemployed workers are available.

5.5 Support for community colleges and schools that offer training and certification programs in renewables and energy efficiency are present.

5.6 Small and local businesses are connected to the emerging market opportunities.

5.7 Career ladders and skills training for low skill workers available.

Strategic Priority 6 Partnering Towards Building Adaptive Capacity

**Key message:** As an emerging sector, interaction facilitates innovation through shared knowledge and exchange of knowledge. Maintaining the edge in innovation makes a region the place new firms choose to locate and existing firms remain vested in

**Effective Implementation of this strategic priority depends on applying these policy principles:**

6.1 Partnerships are broad, public-private collaboratives that involve key stakeholders.

6.2 Stronger partnerships between DOLE and climate science communities to address scientific uncertainty in developing adaptation options and processes are forged.

6.3 Adaptation finance is accessed and available.

Strategic Priority 7 Emphasizing a Strong Pathways Out of Poverty Focus

**Key message:** There is very little integrated capacity to address vulnerability and risk to climate change in the Philippines. This is primarily caused by the lack of institutional mechanisms to link advances in the study of impacts of climate
change found within the scientific research community to mainstream policies and programs of government

**Effective Implementation of this strategic priority depends on applying these policy principles:**

7.1  Multilateral bodies, the public and private sectors and civil society support adaptation in a coherent and integrated manner.

7.2  Risk management and risk reduction facilities including risk sharing and transfer mechanisms such as insurance are accessible.

7.3  Disaster reduction strategies and means to address loss and damage associated with climate change impacts are available.

7.4  Economic diversification opportunities to build resilience of poor families are available.

**Strategic Priority 8 Measuring Results**

**Key message:** Developing performance measures and a monitoring strategy are critical to track the green job outcomes. Such system is important as it enables decision makers to measure performance to ensure progress and the meeting of objectives.

**Effective Implementation of this strategic priority depends on applying these policy principles:**

8.1  A clear, consistent and common set of evaluation criteria is adopted.

8.2  Costs for establishing evaluation mechanisms and related institutional capacity and their effective application are built into the project budget.

8.3  Incentives that reward project exemplars are developed.

8.4  Clearer indicators and tools for monitoring and evaluating the climate change mainstreaming process to enable DOLE to continue reflection and learning.

**5. FRAMING A CLIMATE-SMART DOLE RESPONSE**

**Green Jobs Collaboratory**

Turning these strategic priorities and their underlying policy principles into reality requires a new focus for DOLE planning and management. However, given that green jobs initiatives are inherently collaborative will require DOLE to work to a large extent outside its organizational boundaries. A Green Jobs Collaboratory (GJC) hereto proposed is envisioned as a networked organization whose overall objective is to co-produce solutions to reduce risk of harm or realize benefits associated with climate change as it affects work, the workforce and workplaces.

The objective of the GJC will be achieved through the execution of the following core functions:
- Mobilizing knowledge and technology for green jobs by improving their availability, accessibility and usability for user communities at all levels;
- Piloting green job options, demonstrating and disseminating best practices;
- Assembling and providing packages of services including knowledge, technology and capacity, to support green job options taken by governments, practitioners and communities;
- Supporting the increased integration of green job options into national and regional development planning processes and practices; and
- Promoting synergies and collaboration between various disciplines, groups of practitioners, sectors and regions through the above functions.

Figure 5.1 The Green Jobs Collaboratory

A fully operational GFC is expected to bring the following results:
- Increase in the diversity of stakeholder groups as well as the level and duration of involvement in green jobs programs;
- Increase in policies and initiatives implemented that link environmental goals, economic goals and social goals;
- Increase in the number and quality of green jobs created in city or region;
- Increase in a number of participants in green jobs training and advocacy programs;
- Increase in percent of training participants now in transitional jobs, apprenticeship programs, long-term employment or pursuing additional training; and
- Increase in financial commitments from public and private sector to the green jobs program.

Building Consensus and Credibility in the Near-Term (2009-2010)
Given the enormous conceptual deficit on green jobs, and given the just transition strategic priorities just derived, the GJC as a DOLE pioneering effort will require DOLE initially to:

- work on building the case for an organizational response to tackling climate change;
- draw on available scientific knowledge and advice from experts and partner organizations on risks and strategy; and
- focus efforts on internal awareness raising and external networking.

**4 Ps as DOLE Climate-smart Steps for the Near-Term**

For the near-term, DOLE climate smart moves shall include four components:

**Component 1**: Planning for Restructuring. This component involves engaging key stakeholders on prevalent expectations and concerns on climate change and jobs.

**Component 2**: Portal and Knowledge Assets Creation. This component involves building knowledge assets to create shifts in awareness, facilitate collaboration and fortify industries and communities pursuing social-environmental transformation.

**Component 3**: Partnerships Toward Building Adaptive Capacity. This component advances learning, research and service thru partnerships and seeks to co-produce solutions to address the green jobs deficits both conceptually and in practice.

**Component 4**: Potential Employment Generation thru Clean Development Mechanism (PEGS-CDM) Projects. This component seeks to demonstrate a framework within which local policymakers and industry advocates can develop green jobs initiatives that responds to the realities of their local economies and communities while offering hope and opportunity to those who most need it.

**Component 1 Deliverables: Planning for Restructuring**

- National Green Jobs Conference "Luntiang Usapan para sa Luntiang Kinabukasan", November 2009 in Manila
  - Day 1 - 1:00 pm to 6:00 pm / Plenary & Simultaneous Workshops
  - Day 2 - 1:00 pm to 4:00 pm / Plenary

- Objectives:
  - To spread awareness of the changes that can be expected and the new skills that will be required in the medium-term to meet the adjustment requirements
  - To provide a platform for employers and trade unions to learn from other organizations that have internalized this challenge and taken positive measures to anticipate change
To disseminate information on practices that have been used to embrace change and come up with innovative solutions
To engage a wide audience to take stock of their prevalent expectations and concerns about the low-carbon economy and jobs and their reasons for resisting or embracing climate change issue as a driver

Presenters will cover a range of sectors with different types of exposure to climate change policy drivers:
- Energy generating sectors (electricity, gas, coal)
- Renewable energy sectors (wind, solar)
- Alternative energy sectors (biofuel)
- Employment intensive sectors (construction, retail)
- Competition intensive sectors (cement, chemicals)
- Sectors vulnerable to climate policies (airline, vehicles)
- Climate sensitive sectors (agriculture, tourism)

Presenters will be required to discuss the following:
- Climate change and related policy drivers
- Actions taken so far in response to drivers
- Impacts of climate change policies especially on employment and skills
- Potential implications for the company in continuing its climate change efforts
- Immediate issues and concerns

Participants of about 300 to include DOLE, trade unions, employers, national and regional public authorities, academic experts, social partners representatives of public authorities at different levels and experts international institutions.

**Component 2 Deliverables: Portal and Knowledge Assets Creation**

DOLE to host the GJC and provide knowledge services on climate change and jobs. This constitutes an unrivalled resource but one which must be marshaled and tailored to meet the needs of the poor and vulnerable in their efforts to adapt. Assessing how to build knowledge assets that help minimize risk and improve livelihoods in the context of climate change is a fundamental part of this challenge. The knowledge assets will include the following:

- GJ Portal, a web-based information facility
- GJ Resource Desk, a physical facility as information repository of the following:
  - Tools
  - Actors
  - Processes
  - Resources
- Policy and program maps
- Knowledge artifacts
- (1) Trainors Training for 50 (36 from ROs and 14 from CO) DOLE staff to comprise core team on:
  - Greenhouse Gas Accounting
    - Corporate
    - Project
  - Clean Development Mechanism

**Component 3 Deliverables: Partnerships Toward Building Adaptive Capacity**

- (16) Capacity Building Session for Regional Staff on:
  - Greenhouse Gas Accounting
    - Corporate
    - Project
  - Clean Development Mechanism
- (16) Workplace GHG Audit
- (16) Project GHG Audit

**Component 4 Deliverables: Potential Employment Generation thru Clean Development Mechanism (PEGS-CDM) Projects**

- (4) PEGS-CDM Project pre-work completed. The project will demonstrate the dynamic interaction between formal and informal institutions which can have important consequences for outcomes and the relative decision making power of actors.

Challenges for this particular component include the following: As project is industry-led, the challenge is how to elicit and maintain interest of industry collaborators who will commit to support and provide employment access. Also, local governments as regulatory authority may fall short in complementing industry efforts in the creation of green jobs. As the project targets vulnerable groups that normally face barriers to entry in labor markets, the project may meet resistance unless increase in income from environmental activities is proven substantially higher than that of income generated through exploiting the environment.

- The selection process will involve two levels:

  (1) PEGS-CDM Site Selection
  The PEGS-CDM Project will be implemented in 4 different sites in the country. The choice of sites will essentially be industry/firm determined.

  (2) Industry /Firm selection
• Should be a key employment generator in a community (sources 50% of its workforce from the community)
• Should have a combined articulated environmental goal, economic goal and a social goal
• Should reveal enormous potential for green jobs transformation/creation (i.e. achievement of its environmental goals will require worker training/re-skilling/downsizing)

• Some expected results from PEGS-CDM Project installation include:
  4 Potential Employment Generators engaged and committed
  4 local communities engaged and committed
  400 direct beneficiaries assisted
  40 Barefoot environmental managers trained
  100% of carbon footprint of selected PEG process recorded
  10% reduction in carbon footprint of selected PEG process achieved
  10% increase in enterprise resource productivity due to adoption of waste management practices
  10% increase in enterprise energy efficiency due to realization and adoption of new alternative sources of energy
  10% increase in beneficiary income from environmental activities that ease pressure on generating income through exploiting the environment
  10% new green jobs created out of total current jobs

Table 5.1 Project Timelines (2009-2010)

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5. IMPLICATIONS AND CONCLUSIONS

This paper intends to jumpstart the DOLE’s climate change task as it seeks to create a critical mass of first mover advocates and practitioners. Conceptually, the paper defines green jobs from a Philippine perspective and demonstrates how the climate change and employment agenda are linked. More importantly, it prescribes a just transition framework by which the green jobs adjustment policy should proceed.

From a practical perspective, a four-component strategy is presented to build internal capacity and knowledge assets, use web-technology to draw from multiple sources of knowledge to lower barriers to action, improve adaptive capacity of vulnerable communities, make business practices more sustainable and mobilize investments to support research and development.
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The Impacts of Climate Change on European Employment and Skills in the Short to Medium-Term
The Institute for Labor Studies is the think tank, consultant, broker and knowledge incubator of the Department of Labor and Employment. Our mission is to undertake research and advocacy toward program and policy development in labor and employment along the four strategic goals of DOLE: a gainfully employed workforce; a globally competent workforce; a secure workforce; and a safe workforce.