Appendix E: Sustainability Educational Programming Opportunities

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1. Activities Analysis Guidelines

The Activities Analysis Guidelines document provides a detailed outline of each activity that is currently offered at the Linden Centre. This document is provided to assist the Linden Centre staff in thoroughly assessing each activity and identifying incorporated sustainability elements or lack thereof. By using the included guiding questions, the Linden Centre staff will have a better understanding on how to further integrate additional sustainability elements in a strategic manner. The Activities Analysis Guidelines document can prove to be a very useful tool in developing future activities and programs for visitors and guests of the Linden Centre.

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2. Sustainability Focused Programming Opportunities

2.1 Sustainability Programming Matrix & “Sustainability Short Stays”

The first step that the Linden Centre can take to increase their sustainability programming options is to use the information that is synthesized from the Activities Analysis Guideline and the Sustainability Matrix to repackage current activities into a “Sustainability Short Stay” option for guests. The Sustainability Matrix can be used to identify which activities are most closely related to the main elements of sustainability. By utilizing the Activities Analysis Guideline, the Linden Centre can better help guests select which activities they would like to have included in their stay. These activities will help to expose the guests to the complexities of the three main realms of sustainability: environment, economy and humanity. Guests will have the ability to choose one or more of the activities in order to package a stay that is tailored to their varied experiences and interests. Offering these customizable “Sustainability Short Stays” will enable the Linden Centre to engage guests around sustainability issues in a more personalized and casual way versus a more structured traditional approach found in a longer themed stay. Once the guests have selected the
preferred activities in which to participate during their stay, the Linden Centre can supply them with a customized Materials Packet.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Ecological</th>
<th>Economic</th>
<th>Social &amp; Cultural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike ride through village to lake pointing out cultural and ecological aspects of local village</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local recipe used to prepare dinner using only (or mostly) locally grown foods</td>
<td>X</td>
<td></td>
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<tr>
<td>Tea plantation tour</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Discussion about local economy and customs with business owners</td>
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Offering “sustainability short stays” enables the Linden Centre to engage guests around sustainability issues in a more *personalized and casual* way versus a more structured approach in a themed stay. Guests would choose one or more activities in each of the three main realms of sustainability – ecological, economic, and people – to package a stay that is tailored to their varied interests while ensuring they still see all major aspects and how they are interconnected.

The key to tying this all together is to have all “sustainability short stay” guests also participate in a Sustainability 101 activity. The goal with this 101 activity is to expose guests to the main systems of sustainability, how they interact, what role the actions of organizations and individuals have on those systems. In terms of a pedagogical approach to this activity, a combination of direct instruction and cooperative learning is recommended. This new activity can be developed by tailoring the Sustainability 101 Presentation and Materials Packet resources, which are included in this appendix. These starter products were assembled to give the Linden Centre a range of materials that they could then pull together internally to define their approach to sustainability education.

Offering this "sustainability short stay" option for guests will be the most economically feasible first step towards sustainability focused educational programming. This option repackages what is already offered by highlighting the sustainability elements of each current activity and only requires the addition of one small activity to tie them together.

2.2 Themed Program: Understanding Global Sustainability in the Yunnan Province

Overview

To take educational programming to a deeper level, the Linden Centre could create a themed program focused on exploring sustainability in the Yunnan Province. This would be a more structured approach to offering sustainability focused programming versus the flexibility of the short stay option and would take more time and resources to develop fully. The goal of the program could be to give participants a global perspective on sustainability through local action and experiential learning in the Yunnan Province. It could encapsulate all of the known cultural approaches to sustainable agriculture and development while diving into the challenges of implementing these practices in other places and how culture plays a role in societal movement
towards a more sustainable lifestyle. Applying the think global, act local mentality could help guests better grasp the interwoven concepts and how they can be a source of positive change when they return home.

**Recommendations on Program Development and Details**

In the same fashion as other themed programs that are offered, this could be a 7-14 day program with a detailed agenda and activities within and outside of the Xizhou village. The Yunnan Province has a fantastic range of cultural, environmental, and economic based activities that the Linden Centre could share with guests. It is recommended that the Linden Centre and the Xizhou village serve as the home base to solidify a sense of place and align with the geo-tourism approach to traveling. Below are recommendations on how this program could be developed in the future through a bulleted list of possible new activities and suggestions for modifications to the current offerings.

- **Kick off program with Sustainability 101 activity**
  - This would be longer in length and detail than the activity for short stay participants
  - Get participants to understand sustainable systems and their interdependencies at a general level
  - Engage guests with reflection exercise to think through (and write down) their habits at home and in their workplaces and what their impacts on those systems are
  - Build on that reflection through a group instruction exercise where guests break out into small groups and share their reflections and discuss strategies to reduce their individual impacts
  - Enables guests to group problem solve which will help with breaking the ice among strangers and foster the building of relationships during the rest of the trip

- **Give “Sustainability Tour” of the Linden Centre**
  - Share with guests what the Linden Centre is doing to reduce its social and environmental impacts in an economically efficient way
  - Share how all of the staff are engaged in these efforts too - communicate that it is a team effort and that everyone plays a role
  - Can help the guests orient themselves with the facilities and will show the level of commitment that the Linden Centre has made to greening their infrastructure and operations
    - This would help guests understand you are “walking the walk” in how you have greened the operations of your facility
    - This would also help them understand the basics behind not-so-sexy sustainability initiatives like energy efficiency, composting, etc

- **“Living more Sustainably” workshop with guests**
  - This activity could dig into behavioral strategies to reduce their negative impacts
  - Kick it off with a discussion of ways they can reduce the negative impacts during their stay at the Linden Centre. This could ease them into understanding the range of strategies from energy conservation to local foods through experiential learning on site.
  - Start with overview of strategies at home, then move to the workplace, then into how they engage with the economy (purchasing decisions) and what it means to buy greener products
  - Break up content with brainstorming / reflection exercises where participants think about what they currently do and what would be easy to change
Wrap up session with some “take aways” like a checksheet of sustainable lifestyle behaviors that they can make pledges to try when they get home

**Showcase of Local Sustainability Practices and Hands on Activity**
- This activity could connect guests with a think global, act local approach and could be applied to any major global sustainability challenge dependent on the availability of a local example that can be used.
- A topic that could be explored here is sustainable agriculture and its role in the local economy. This could have “classroom learning” paired with a trip to a local farm that uses organic production methods.
- Here are suggestions on how you could explore this topic:
  - You could discuss the fundamentals of organic and sustainable approaches versus conventional or factory farm approaches to agriculture.
  - After giving a small amount of content, you could engage guests by asking them to “put on their sustainability lens” and unpack the negative impacts in small groups
  - Use the Graffiti model to have groups go through the social/cultural, environmental, and economic impacts of the opposing approaches to agriculture (one at a time) on large sheets of paper. This quick, but targeted brainstorming exercise will create a lot of productive dialogue
  - Then have each group review their impact brainstorm sheets and summarize their perceived negative and positive impacts of the different approaches
  - Bring groups back together for additional direct instruction on the impacts and open a dialogue about the challenges and barriers for sustainable agriculture globally
  - Then take the group to a local farm where they are given a tour and are able to then help the grower in some way (pulling weeds, organizing produce, etc)

**“Wild and Beautiful Yunnan” Excursion**
- Travel outside of Xizhou to a more wilderness based environment
- Discuss the different species of plants and animals that live there and describe how they are dependent on the local ecosystem
- Transition discussion into impacts of humans on the ability of those ecosystems to function.
- You can then tie this into a discussion about ecosystem services, how humans are dependent on them, and what ecosystem services the people of Xizhou use to thrive.

**Enhance current activities through one of many options**
- Strive to cover all three elements of sustainability in each activity to some degree, even it is only for a couple of minutes. This will help guests understand how the activity relates to sustainability and deepen their understanding of the range of interdependencies.
- Bring in local subject matter experts to discuss one of the sustainability elements of an activity.
- Activities can be more involved and have 2-3 phases with idea-generation, reflection, and pledging to take something home with them in the way of sustainability approaches/lessons learned.
2.3 Themed Program: Sustainability Champion’s Assessment and Strategic Planning Retreat

Overview and Goals of Program

There is an immense opportunity for the Linden Centre to partner with the Virginia Tech Center for Leadership in Global Sustainability on a new business venture focused on engaging the private industry around sustainability practices and internal leadership development. Every enterprise and every employee has a role to play in our transition into a sustainable society. Together, a themed program could be developed that focuses on nurturing and training the sustainability champions of private enterprises across the globe. This new market is ripe and interest in this type of assessment and strategic planning retreat is high.

Goals of a Sustainability Champion’s Assessment and Strategic Planning Retreat Program:

- Participant engagement oriented around cross industry dialogue, strategic thinking, and collaborative problem solving
- Effectively educate self-identified champions on sustainable decision making practices in the workplace and on how to educate and engage their colleagues through peer-to-peer education and engagement
- Discussions focused on identifying barriers to sustainability success, strategies to overcome those barriers, and how to develop other sustainability champions within the organization

Rationale for Program Development

According to McKeown et al, “The world needs a literate and environmentally aware citizenry and workforce to help guide nations in implementing their sustainability plans. All sectors - including business, industry, higher education, governments, nongovernmental organizations (NGOs), and community organization – are encouraged to train their leaders in environmental management and to provide training to their workers” (2002). Due to this need in the workforce, increasing and improving corporate sustainability and social responsibility efforts are high priorities to many businesses today. With the emergence of global assessment and reporting tools, like the Global Reporting Initiative and Carbon Disclosure Project, sustainability has made its way into the strategic plans and long term visioning of companies more than ever before. Not only is it good for public relations, but increasing efficiency also affects the company's bottom line in more ways than one. “Recent research has shown a strong and positive link between successfully implementing a social and environmental strategy and corporate value. The payoffs of improved sustainability performance can include increased employee satisfaction, lower operational and administrative costs, improved productivity, enhanced image and reputation, increased market opportunities through niche markets, better shareholder relationships, and stock market premiums” (Epstein et al, 9). Successful integration of sustainability within an enterprise requires a blend between a push from the top down and capacity building from the bottom up. It requires a strong commitment from the corporation’s leaders and infusing informed, sustainability lens based, decision making into the fabric of the existing corporate culture.
Below is a listing of a handful of the top challenges that have been identified by Blackburn (2007) and Kimmet (2007) for effective sustainability education across an entire enterprise:

- Multiple departments/市场 streams - focused on different topical areas
- Different physical offices/locations
  - Regional, national, international offices
  - Academic buildings / central versus satellite campuses
- Addressing apathy and why they should care
  - Tying it to their job responsibilities - why their decisions matter
- Support at all levels of the enterprise for top down and bottom up efforts to move forward
  - Employees aren't going to care if people in leadership roles don't
  - Need to build the culture around sustainability in the workplace
- Feasibility and Accessibility for Employee involvement
  - Capacity to reach everyone - time and physical resources for information distribution
  - accessibility to the program and the information needed for them to make better decisions
- Communication of information and keeping it engaging for all
  - Too in the weeds or way too broad
  - Tailored to different job responsibilities versus 50,000 foot level and where in between
  - Acquisitions, mergers, and changing in missions

Typically, today’s enterprises take a top down approach to integrating sustainability into their business operations - efforts are at the corporate level with enterprise wide goals and initiatives. While this is important, there is a critical second step, a bottom up approach, of educating and engaging employees on the impacts of their daily decisions. This blended approach has been supported by the Australian Journal of Environmental Management: The enthusiasm and commitment of the workforce at all levels has to be generated, and new ideas on environmental sustainability need to come from the bottom-up. In effect, both top-down and bottom-up approaches are needed, neither being sufficient on their own (Benn et al, 8). The daily decisions of each employee accumulate to contribute significantly to the operations and direction of the enterprise as a whole.

The ultimate implementation success of any sustainability program will rely heavily on the actions of the individual employees and how well they are able to use the sustainability factors to make informed decisions. Every employee is critical for the enterprise to be successful in its sustainability endeavors. “There is nothing very sustainable about many workplaces. Doing something about it can be expensive, but even when large sums have been spent on design and construction, much of the benefit relies on the cooperation of staff. A more sustainable strategy than the capital investment alone, is to make the workplace more sustainable in the way employees operate in it” (Kimmet, 37). The staff members are your drivers, without them, you only have the vehicle and cannot move forward. The underlying problem is the employee's apparent lack of accessibility to information and set of parameters that need to be taken into consideration in order to make informed decisions on a daily basis within their job responsibilities in the workplace. The reality, according to Kimmet, is that the workplace is a place characterized by social interaction, "people remain at the core of both the obstacles and the solutions to increased sustainability" (39). There are many barriers that inhibit employees from making more informed decisions. “Barriers to a
sustainable behavior may be internal to an individual, such as one’s lack of knowledge, non-supportive attitudes or an absence of motivation. On the other hand, barriers may reside outside the individual, as in changes that need to be made in order for the behavior to be more convenient or affordable” (McKenzie-Mohr et al, 15). Internal sustainability champions can tackle this head on with the right skills and toolbox for effective engagement.

The proposed retreat can provide one opportunity to meet this identified need of various enterprises through a hands-on colleague-based group exercise approach. According to Kimmet, “Communication that brings about the social changes required for sustainability tends to be more effective if it comes from trusted, credible sources such as work colleagues in informal social settings… Once people are excited, engaged, enabled and empowered by what they have heard or seen, they are motivated to pass it on, becoming powerful agents of further change” (48). Recommendations on program elements and specific activities are included below to provide examples on how this program could be formed in the future.

**Recommended Topical Areas and Activities for Retreat**

- **Detailed overview of sustainability systems, the role of sustainability champions, and functional sustainability structures within an organization**
  - Cross disciplinary sustainability strategies for organizational efficiency, equity, and environmental systems stewardship
  - Content on range of sustainable facility infrastructure and operations options
  - Content on range of employee education and engagement strategies to change daily practices
- **Individual behavioral decision-making on daily basis affects triple bottom line**
  - Materials consumption - waste and over consumption - paper waste (one sided printing, unnecessary printing, trashing versus recycling), trash versus recycling, trash produced
  - Water consumption - wasteful use (ie using max flow when not needed)
  - Transportation - to and from work, in person meetings versus teleconferencing
  - Energy consumption - leaving unneeded items (especially lights and electronics/computers) on, thermostat controls, use of power strips to address phantom power consumption
- **Decision making within your control and job responsibilities**
  - Procurement decisions - products and companies - supply chain
  - Design decisions - engineering perspective, architecture, infrastructure
  - Contractors (and subcontractors) - choosing which to use, education on our sustainability mission
- **Overall corporate culture**
  - Expectation to consider sustainability factors into daily decision making and within your job responsibilities
  - Engagement and encouragement of other employees to consider sustainability factors
- **Internal assessment exercises**
  - Mix of large group content and discussion sessions with small group exercises to identify strengths, weaknesses, barriers, and opportunities
• Strategic planning session for each organization to outline what priority areas are, tangible goals, and approach for meeting those goals when they get back - creation of a roadmap to short term goals
  ○ Emphasis on Sustainability Operating System development
• Effective peer-to-peer Sustainability Education strategies
  ○ Train the trainer for employee education and engagement activity/game
• Blend current Linden Centre short stay activities into the schedule to break up the content and intensive exercises

Details on a Handful of Possible Activities

• Icebreaker / Intro to Decision-Making on a Daily Basis
  ○ Intro to a range of daily decisions to get them thinking for the group exercises
  ○ Small group exercise:
    ■ Share what your responsibilities are - on paper / current workload / expectations
    ■ Formal and informal
    ■ To show that we all have too much on our plates and everyone is stretched thin, so we’re not trying to ADD anything to your workload by integrating sustainability, it’s about making decisions informed by a sustainability lens
    ■ Share what you feel are your strengths and a way you can contribute creatively to better the workplace and office culture
  ○ Group discussion:
    ■ Groups share on what types of decisions they make on a daily basis
    ■ What are the most frequent ones? Easiest to change?
    ■ Come up with list as possible decisions to walk through
    ■ Tailor second section with these "decision making scenarios"

• Sustainability Lens development and action
  ○ Understanding decision making and impacts on triple bottom line of enterprise
    ■ Use 2 examples of decisions given in group discussion and quickly walk through steps for looking at life cycle
  ○ Systems explanation and systems thinking for decision making
    ■ Considering the potential spheres of impacts - impacts, costs, and benefits analysis
  ○ Expanded set of considerations for making decisions
    ■ Systems thought approach to decision making
  ○ Making sustainable decisions on a daily basis
    ■ Community based social marketing to foster sustainable behavior

• Leadership, Interdependence, and Working Together
  ○ Understanding decision making in your organization and in your roles
    ■ Making the connections of who you are interdependent on to make decisions for your organization
    ■ List your daily and long term decisions
    ■ Pick one or two
  ○ Importance of communication - internal to teams and external to the organization
  ○ Interdisciplinary teams across areas to expand networks, communication, and corporate-wide movement forward
3. Passive Sustainability Engagement Opportunities

According to McKenzie-Mohr et al, 61, prompts are effective ways in which to remind people to engage in sustainable behaviors. Prompts can either be visual or auditory aids, which reminds us to carry out an activity that we might otherwise forget. The usage of signage is an example of a visual prompt that cannot only act as reminder but also to explain the reasons why the activity is needed thus reinforcing the activity’s importance. It is our recommendation that the Linden Centre implements the use of prompts in the form of signage in and around the facility. By using signage, the Linden Centre staff will be able to passively convey information to the guests regarding the different sustainability related efforts that are occurring within the Linden Centre walls. Signage can be placed throughout the Linden Centre explaining the sustainability related relevance of each item or activity whether it is social, economic or environment based. For example, signage can be used to explain the importance of the preservation of antiques, turning off lights, turning down the hot water heater temperature, reusing linens multiple times, or eating locally sourced meats and produce. By including statistical comparisons, such as the differences between using traditional incandescent and compact fluorescent lighting, the Linden Centre staff can demonstrate the proven importance of doing the things that they do. Combined with the Sustainability 101 Presentation, Materials Packet, and sustainability short or themed stay; the guests will optimistically internalize the lessons articulated and implement some of them in their own homes, offices and/or communities. The included Signage List highlights several example activities and areas in which the Linden Centre staff can effectively use signage.

Linen exchange program
Reusable toiletry containers
Compact fluorescent lighting
White wall in courtyards
Locally sourced meat & produce
Preservation & display of antiques
Scheduled times for cooking
Cold water laudering
Eco-friendly cleaning supplies
Limited electronic appliances
Locally made, organic body soap

Non-motorized transportation
Locally made furniture
Native flora & fauna in gardens
Employment & training of local persons
Locally made furniture
Locally made wine
Reusable tea/coffee mugs in guest rooms
Turn off lights when leaving room
Framed sustainability mission in each room
Collection and recycling of plastic containers
Family based & community focused business

4. Resources on Sustainability Education and Engagement

Included is a brief list of books, databases, and websites wherein the Linden Centre staff can find more information about the complexities of teaching and implementing sustainability. The list has been compiled and sorted by a professional sustainability planner who works in sustainability education and has found these resources to be helpful with program design and implementation. Sustainability is one of the most important and increasing global challenges today and therefore the number of resources on this topic is growing exponentially every day. By joining sustainability listservs and keeping an eye on the trends, the Linden Centre will be able to stay current on the latest in technological innovations and educational strategies that aligns with their sustainability
goals and missions. These resources are also great assets to the Linden Centre staff for the
synthesis of the Activities Analysis Guideline and subsequent development of associated activities,
materials and guest experiences.

4.1 Teaching Sustainability

- US EPA's Teaching Stewardship and Sustainability Website
- **147 Practical Tips for Teaching Sustainability** ([hyperlink](http://example.com)) by: William Timpson, Brian Dunbar, Gailmarie Kimmel, Brett Bruyere, Peter Newman, and Hilary Mizia
- Second Nature: Their Education for Sustainability (EfS) Blueprint & extremely helpful resources page
- **Fostering Sustainable Behavior** ([hyperlink to web book](http://example.com)) by: Doug McKenzie-Mohr and William Smith
- **Sustainability Education, Perspectives and Practice across Higher Education** by: Paula Jones, David Selby, and Stephen Sterling
- **Teaching Sustainability, Teaching Sustainably** by: Kirsten Allen Bartels and Kelly Parker
- The North American Alliance for Green Education website
- VT CIDER's Pedagogy in Practice for a general pedagogy reference document

4.2 General Sustainability Content and News

- US EPA Basic Information and Resources on Sustainability
- Association for the Advancement of Sustainability in Higher Education ([AASHE] Resources Page)
- UCF's Database of External Resources on Sustainability
- Science Daily's Sustainability News site
- BEST Education Network's resources on sustainable tourism and case studies
- Sustainable Tourism Directory
- There is PLENTY out there on this!

4.3 Sustainable Enterprises

- **The Sustainability Handbook** by: William Blackburn
- GreenBiz.com
- Environmental Leader
- International Society of Sustainability Professionals
- Greening the Workplace research by Brighter Planet
- **The Green Marketing Manifesto** by: John Grant
4.4 Sustainability 101 Power Point Presentation

Before guests engage in experiential learning on sustainability activities at the Linden Centre and the surrounding region, it is our recommendation that the guests receive an introduction to the concepts, vocabulary and applications of sustainability. A “Sustainability 101” presentation has been developed that can be used at the beginning of a guest’s stays to fulfill that purpose. In order to personalize the guest’s experience, staff from the Linden Centre should modify and complete the final slides of this presentation. These modifications should be made to align with the individual guest’s or group’s previous sustainability knowledge, thus adding to the overall understanding of the Linden Centre’s mission and sustainability efforts and activities that the guests will experience during their stay. This presentation has been developed for usage in conjunction with learning exercises 1-3 of the “Sustainability Themed Stay Materials Packet”.

[ATTACHED AS PPT & PDF]

4.5 Packet of Materials for Guests

In order to actively engage guests in the sustainability learning process during their stay at the Linden Centre, we have compiled a packet of materials for this purpose. This packet of materials has been developed as a starting point for sustainability related information that can be provided to guests prior to their visit to the Linden Centre either through email, hard copy or possibly an iPad app. The packet includes learning objectives that will be highlighted during the stay, space for goal setting exercises, details of exercises to accompany the Sustainability 101 presentation, space to include the Sustainability 101 presentation slides, and related suggested readings. This materials packet can be customized as the details of the guest’s desired sustainability experience are established. The additional resources listed can be utilized for the development of the Sustainability 101 presentation and Materials Packet.

[ATTACHED AS WORD DOCUMENT]
Activities Analysis Guidelines

Currently Offered Programs:

Activities currently listed on the Linden Center website:
- Trace the steps of the ‘Flying Tigers’ in Yunnan Yi
- Traditional Bai music and dancing performances in our courtyards
- Antique hunting in village homes and attics
- Visit with local organic farmers and fishery owners
- Tour factories of families creating indigenous textiles
- Explore mountainside temple complexes at Weibao
- Cycle the coast of Erhai Lake, traversing fishing villages and rice fields
- Explore Cangshan mountain, offering picturesque views of Dali Valley
- Relive the Buddhist pilgrimage up Jizu Mountain

Short stay programs:
- Any combination of activities listed below and can be crafted to the guest experience.

Themed programs:
- A Taste of Dali with Globetrotting Gourmet
- Adventures in a Chinese Kitchen
- A Photo-journey in Yunnan with Douglas Beasley
- Lost in Shangri-la: A Cultural and Natural History Exploration
- Painting in the Land South of the Clouds

Currently Offered Programs that are Sustainability Related:

Local and/or “Slow Food” meals during guest’s stay

What is currently offered (from our understanding):
- Activity on website: Source local foods and cook with head chefs on staff
- From culinary short itinerary:
  - Traditional Bai three-course ceremony in which each tea represents a different phase in life
  - Dinner will be a set menu created by Linden Centre’s Chef Yang highlighting seasonal ingredients unique to the region. Local Yunnan wine will be served with dinner.
- From Adventures in the Chinese Kitchen (long themed stay)
  - Guests collect all of the produce and meat, bring it back and cook it at the center with LC chefs

Why is this activity sustainability related (from our understanding):
- Connects guests to local foods but also dishes that are unique to the region/culture

Guiding questions for continued development of sustainable activities:
- How far away from the LC are the farms that the food is coming from?
- What are the agricultural practices of the farms the guests are visiting?
  - Do they use pesticides or are they considered organic?
  - Have there been having changes in harvest schedules and practices due to watershed issues or climate change?
- What are the sizes of these farms?
• Large scale vs small?
• Commercial vs family?
  - What are the actual harvesting mechanisms?
    • Highly mechanized vs hand picked?
    • Is there an existence of local innovative methods in harvesting practices?
  - What is their market / who do they sell to?
    • Are the products mostly locally sold or is it production for exportation?
  - Who are their employees?
    • Are the farm employees local community members or commuters?
    • Are they paid a living wage based off of farm profits, percentages, harvest quotas, working hours, or a straight wage?

How can this activity be modified to further incorporate sustainability:
• Have all locally sourced and seasonal foods for all meals
• Have signage about where the food came from for each meal or short announcement of where it came from before guests begin eating
• Culturally focused menu with dishes localized to area
• Share medicinal properties used/assumed for some of the food
• Share ideas of how this can be implemented in their own homes/communities

Team Discussion and Feedback:
• This activity will help to bridge the local village to the Linden Center both socially and economically and will provide guests a hands-on way of making that connection. This can also be an activity that helps guests understand what can be done in their own communities through the local farmers markets. This therefore ties in with what we had discussed about having activities that the guests can take home and implement. Communicating to guests either in an active way (formal announcement) or passive way (signage) where their food came from for each meal with specific farm names and locations can have an impact on how guests enjoy their food
• Example of afternoon/evening activity: Can pair the tour of the organic farm with education about agricultural practices, have experiential learning with guests picking their own vegetables, then have them come back and cook with the chefs to prepare a seasonally appropriate and culturally significant dish - connects farm to table for a sustainable and educational meal
• The slow food movement has gotten a lot of traction in the US and Europe (and in Europe there are actually “Slow Cities”), so it would be interesting to see how much the Linden Center’s current practices align with the slow food practices.

Visit with local organic farmers

What is currently offered (from our understanding):
• Listed as an activity on their website: "Visit with local organic farmers and fishery owners"
• Culinary short itinerary: Back in Xizhou, stop by a local home where a farmer raises cows and makes cheese unlike any you have tasted before
• Activities within the Chinese kitchen themed program as well
  Why is this activity sustainability related (from our understanding):
  • Organic farming has a far smaller negative impact on the surrounding environment than traditional big agriculture type methods, and is arguably healthier
  • Meeting with farmers and seeing agricultural practices first hand is an important part of the farm to table experience

Guiding questions for continued development of sustainable activities:
• Is there a discussion of sustainable agriculture in the area?
  • Need to identify what the sustainable elements of “sustainable agriculture” are in the area/region
• What are the agricultural practices of the farms the guests are visiting?
  • Do they use pesticides or are they considered organic?
  • Have there been having changes in harvest schedules and practices due to watershed issues or climate change?
• What are the sizes of these farms?
  • Large scale vs small?
  • Commercial vs family?
• What are the actual harvesting mechanisms?
  • Highly mechanized vs hand picked?
  • Is there an existence of local innovative methods in harvesting practices?
• What is their market / who do they sell to?
  • Are the products mostly locally sold or is it production for exportation?
• Who are their employees?
  • Are the farm employees local community members or commuters?
  • Are they paid a living wage based off of farm profits, percentages, harvest quotas, working hours, or a straight wage?

How can this activity be modified to further incorporate sustainability:
• Possible topics for discussion:
  • Do genetically modified foods have a role in sustainable agriculture (drought resistant crops, high-yield varieties etc.)?
  • How are agricultural practices in China different than in the US and other countries?
  • Basics between organic agriculture and big agriculture operations
• Have all locally sourced and seasonal foods for all meals
• Have signage about where the food came from for each meal or short announcement of where it came from before guests begin eating
• Culturally focused menu with dishes localized to area
• Share medicinal properties used/assumed for some of the food
• Share ideas of how this can be implemented in their own homes/communities

*Team Discussion and Feedback:*

• See comments in the slow food activity - I think that these two (plus the fishery activity) are so interconnected that they could almost be combined into one activity for the guests. I think that it may actually work out better if there is just one food themed activity that is an all-encompassing activity (ie. trip to local farm or fishery and then a cooking class afterwards with hand-harvested food items). Less overwhelming to try to plan logistics if it is all connected and planned as one activity.

**Visit with local fishery owners (Aquaculture)**

*What is currently offered (from our understanding):*

• Listed as an activity on their website: "Visit with local organic farmers and fishery owners"

*Why is this activity sustainability related (from our understanding):*

• Aquaculture is a sustainable practice of raising popular food species of fish that are either over-harvested in the wild or not native to the local area. Aquaculture has been practiced in China for over 4000 years so it is obviously a critical and crucial part of the culture. Supplying fish in this way supports the local economy by creating jobs and training while also providing a sustainable protein source of food in areas that may otherwise not have access to fresh meat products.

*Guiding questions for continued development of sustainable activities:*

• What species of fishes are guests seeing in the fisheries?
  • Are these native or non-native species to the area/region/country?
  • Do the fisheries have an ecosystem service they provide or is it to produce food only?

• What are the aquaculture practices of the fisheries the guests are visiting?
  • Are they considered organic?
  • Have there been having changes in harvest schedules and practices due to watershed issues or climate change?

• What are the sizes of these fisheries?
  • Large scale vs small?
  • Commercial vs family?

• What are the actual harvesting mechanisms?
  • Highly mechanized vs hand harvested?
  • Is there an existence of local innovative methods in harvesting practices?

• What is their market / who do they sell to?
  • Are the products mostly locally sold or is it production for exportation?

• Who are their employees?
  • Are the farm employees local community members or commuters?
• Are they paid a living wage based off of fishery profits, percentages, harvest quotas, working hours, or a straight wage?
  - What do they do there while on the tour?
    - What topics are discussed during the tour?
  - Is there a myth or story behind the species of fish or lake (culturally relevant)?

*How can this activity be modified to further incorporate sustainability:*
  - Possible topics for discussion:
    - Overfishing of wild species
    - What role can aquaculture play in food security?
    - What are the best practices for sustainable aquaculture development?

*Team Discussion and Feedback:*
  - See comment from above sections regarding combining or connecting activities.
  - Aquaculture may not be something that guests can necessarily do in their own backyards when they get home but it is something that they can be aware of when at the grocery store the next time or when out to eat and trying to select fish based dishes. Aquaculture can be a very sustainable way of producing both high quality and quantity protein sources. Aquaculture helps to decrease the burden and stress placed on already over-harvested wild fisheries while providing economic, social and nutritional stability to an area/region in need.

*Understanding local culture and traditions*

*What is currently offered:*
  - Additional activities listed on their website:
    - Trace the steps of the ‘Flying Tigers’ in Yunnan Yi
    - Traditional Bai music and dancing performances in our courtyards
    - Antique hunting in village homes and attics
    - Explore mountainside temple complexes at Weibao
    - Relive the Buddhist pilgrimage up Jizu Mountain
    - Morning Tai Chi led by a local master
    - Chinese language introduction
    - Introduction to calligraphy and Chinese characters
    - Traditional Chinese medicine overview and practice
  - Themed programs:
    - A Taste of Dali with Globetrotting Gourmet
    - Adventures in a Chinese Kitchen
    - A Photojourney in Yunnan with Douglas Beasley
    - Lost in Shangri-la: A Cultural and Natural History Exploration
    - Painting in the Land South of the Clouds
  - Mentioned in previous conference call:
    - Visit and workshops with the basket makers across the river

*Why are these activities sustainability related (from our understanding):*
  - All of these activities focus on the important cultural and social aspects of the area/region surrounding the Linden Center.
These activities help to support locals and educate visitors regarding the importance of cultural preservation and traditional livelihoods.

Guiding questions for continued development of sustainable activities:

- **What makes this area/region and culture unique?**
  - What types of festivals do they have throughout the year and what opportunities are available to develop a themed program around these?
- **What are the demographics of local area?**
  - What is the average lifespan of residents?
  - What are the traditional lifestyles?
  - What are the range of religions in area?
  - What are the ethnic identifications in the area?
- **What makes the people/population unique?**
  - Is this area/region considered a melting pot? Why or why not?
  - Why did all of these people get drawn there?
- **What is the range of local products?**

How can this activity be modified to further incorporate sustainability:

- Contact current local participants and see if there is a desire to incorporate any other elements into the activities.
- Explain to the guests what they are seeing and experiencing from both local and global viewpoints.
- Qualify activities with informational facts that explain the positive impacts of supporting local cultures.

Team Discussion and Feedback:

- Since cultural understanding and immersion are some of the most important elements to the guest experience, these should be a main focus for developing more themed stays for guests.
- A thorough explanation of each activity would be helpful to see where additional elements could be discovered and developed.

Discussion about local economy and customs with business owners

**What is currently offered (from our understanding):**

- This activity is listed on the Linden Center website with no detail given.

**Why is this activity sustainability related (from our understanding):**

- This activity would highlight some of the business practices (or lack thereof) such as fair wages, women's rights, labor laws, and health and safety issues surrounding current enterprises within the villages and how these economic and social issues are interrelated and addressed in a sustainably responsible way.

Guiding questions for continued development of sustainable activities:

- What is considered "sustainable business" in the area/region?
- What are the current business practices of these businesses and who dictates/decides these practices?
- What are the sustainable elements of building local economy?
- What are the business case reasons for operating sustainably?
- Are these businesses family operated? Does this play an important role in the sustainability and resilience of the business?

How can this activity be modified to further incorporate sustainability:
• Indicate and train villagers in the local area/region that would be good candidates to become “Sustainability Champions” in their workplaces
• Indicate business lessons to be learned that can be communicated to other areas/regions in which the Linden Center may have influence
• Investigate if there are any further sustainable business elements that are feasible within the area/region

**Team Discussion and Feedback:**
• Getting more information about the businesses that are part of this group and why/how they got involved with this through the LC in the first place would be a great way of explaining to the guests why it important. That information would possibly play a vital role in developing this activity for guests so that it doesn’t come across as a “town hall meeting” type of activity.

**Visit tea plantation**

*What is currently offered (from our understanding):*

- Activities listed on their website:
  - Trace the tea growing, picking, and blending process
  - Enjoy a traditional local three course tea

*Why is this activity sustainability related (from our understanding):*

- This activity encompasses economic and cultural significance while highlighting a local product.

*Guiding questions for continued development of sustainable activities:*

- What are the metrics on how quantifying water usage for tea growing?
- What are the land use needs for growing tea?
- Is the tea organically grown?
- What are the harvesting practices employed?
- What is the typical lifestyle of a tea picker?
- How could you explain the life cycle of this tea production process?
- How much tea is consumed in all of China?
- What happens to the tea end of life?

*How can this activity be modified to further incorporate sustainability:*

- Depending on the mode of transportation to/from the tea plantations, this may be a place to start. Are the plantations close enough to take the horse-drawn carriages or bicycles?

**Team Discussion and Feedback:**

- A picnic at the tea plantation would be a great way to involve the guests in not just the processes of the tea plantation but the surrounding countryside and nature. The picnic could include food that the guests harvest themselves from the farm visits listed above so that the different activities are linked and not as singular and separate.

**Visit factories of families creating indigenous textiles**

*What is currently offered (from our understanding):*

- This is listed on the Linden Center website with no detail given

*Why is this activity sustainability related (from our understanding):*
• This activity connects guests to the local culture and it's locally produced products.

*Guiding questions for continued development of sustainable activities:*
- What is the story behind the crafts being created (i.e. tradition, religion, culture)?
- Why is it valuable and what is the meaning to guests?
- What materials are used to create the product?
  - Are they sustainably harvested?
  - Where are the raw materials coming from to make these crafts?
- How do they make these products?
  - Are they all hand-made or are they machined?
  - Are the dyes and paints derived from natural sources or man-made?
- What portion of their income is based on the sales of this craft?
- How dependent is it on tourism dollars?
- What is the scale of production?
  - Is there an ability to have international buyers that are not tourists / export?
  - Are these products being marketed/sold locally or more so to tourists?
  - Are these products sold at markets and festivals?

*How can this activity be modified to further incorporate sustainability:*
- Discuss economic development strategies that are locally focused and how these might be implemented into the business model.
- Discuss lessons learned that the guests can take home regarding the choices they make in purchasing textiles for their homes/offices.

*Team Discussion and Feedback:*
- This would be a great way of connecting the guests to the local culture and being able to integrate cultural identity into products. This same concept applies to many of the cultural/social activities that the Linden Center offers. The guiding questions will help to flush out what is truly sustainable and what still needs more focus.

*Visit local temple / wine distillery:*

*What is currently offered (from our understanding):*
- In culinary short market - take guests to nearby (by Shaping market) temple which doubles as a wine distillery
- That distillery's wine is served at the dinner they have that evening

*Why is this activity sustainability related (from our understanding):*
- Wine making is a very ancient practice in China and therefore this activity is a great way of bringing this heritage of not only the local people but of the country as a whole into focus in a social, economic and environmental way. By being able to tour the wine distillery, guests will be able to connect the local culture, economy and environment of the villagers to the wine that is served at dinner.

*Guiding questions for continued development of sustainable activities:*
- Are the grapes locally grown?
- Are the grapes grown in an organic fashion?
- Is the wine distilled using authentic ancient practices or is it modernized with automation and machines?
- What is the significance of the temple in the wine distillation history and process?
  - Why is the distillery here?

*How can this activity be modified to further incorporate sustainability:*
- Depending on the answers to the guiding questions above, there is many ways that this activity could be made more sustainable such as modifying the harvesting, distilling, and packaging processes.

*Team Discussion and Feedback:*
- This activity would be a great way of making comparisons between the western and eastern methods of distillation processes.
- Also would be a great place to have a discussion on the differences of alcohol consumption between western and eastern cultures.

**Cycle the coast of Erhai Lake, traversing fishing villages and rice fields**

*What is currently offered (from our understanding):*
- This is an activity listed on the Linden Center website, unsure of details

*Why is this activity sustainability related (from our understanding):*
- A bicycle based tour is a responsibly sustainable way of exploring the surrounding area of Dali while connecting with local food suppliers and promoting a healthy lifestyle.

*Guiding questions for continued development of sustainable activities:*
- What are the different village activities that are seen while riding around?
- Who are the village residents?
  - Where did they come from?
  - Is the village segregated into the different ethnicities or religions or is more of a melting pot?
  - Who decides where the residents live and work?
  - Who and how is it decided the type of work that the village residents perform?

*How can this activity be modified to further incorporate sustainability:*
- To further incorporate sustainability, the Linden Center could potentially connect this to “smart growth” discussion and have guests try to relate it back to their communities. Discuss walkable/bikeable living spaces, green infrastructure, etc.
- Combine this activity with a shopping trip around the village or another one of the local activities along with a planned picnic or lunch at one of the local eateries.

*Team Discussion and Feedback:*
- Being able to stop and talk about what the guests are seeing around the village would be a very important part of the experience and a great way of connecting the guests with the local village residents especially if they don’t participate in any of the other activities.
- Is there a way of doing this same thing but with the horse-drawn carriages or other mode of sustainable transportation for those guests that are not able to bike?
Explore Cangshan Mountain, offering picturesque views of Dali Valley

What is currently offered (from our understanding):
- This is an activity listed on the Linden Center website, unsure of details

Why is this activity sustainability related (from our understanding):
- Experiential learning of the local natural environment surrounding the area/region

Guiding questions for continued development of sustainable activities:
- Are there any ecosystem services provided by this mountain range for the area/region?
- Are there any endangered flora and/or fauna on the mountain?
- What are the protection plans for this type of ecosystem?

How can this activity be modified to further incorporate sustainability:
- Depending on how the Linden Center has this activity already framed and what is offered at the area, this could be an excellent example of the why, what, and how ecosystem management is important to not only the environment but to the area/region residents as well.

Team Discussion and Feedback:
- This could be an activity that the guests could do on their own or with a local guide either from the Linden Center or the village. The Linden Center could provide a visual guide to the different flora and fauna on the mountain.

Visit embroidery school that is nearby

What is currently offered (from our understanding):
- Visit a local embroidery school, and see the intricate pieces produced by hand right in Xizhou

Why is this activity sustainability related (from our understanding):
- A culturally significant school that teaches a traditional trade.

Guiding questions for continued development of sustainable activities:
- What exactly is embroidered?
  - Clothing, linen cloths, headwear, shoes, etc...?
- Who attends the school?
- Who pays for the school?
- Where does the students of the school go after graduation?
- Is this only a school or does it produce products for sell to the locals or export?
- Are there similar schools in the area/region that offer instruction for other trades?
  - Wood working, blacksmiths, construction, etc...?

How can this activity be modified to further incorporate sustainability:
- If the school does sell or donate products, it would be a great idea if the Linden Center used some of the hand-embroidered products in the facility such as tablecloths, bed linens, cloth napkins, etc...

Team Discussion and Feedback:
- Along with others, this activity can help to educate guests about locally manufactured goods
GLOBAL SYSTEMS THROUGH LOCAL SUSTAINABILITY LENS

EXPERIENTIAL LEARNING AT THE LINDEN CENTER

Content
Learning Objectives and Community Engagement
Personal Learning Objectives, Goals, and Insights
Sustainability Course Material - Presentation Slides and Exercises
Suggested Readings
Maps
Learning Objectives and Community Engagement

We encourage each of our guests on this sustainability program to review the following learning objectives for your trip. We have provided you with several ideas to get you thinking, and our program will be built around elements of this list of opportunities and questions.

- Understand and discuss some common definitions of “sustainability.” Are they too restrictive? Too broad?
- Identify some of the challenges posed to living sustainably in your own community, country, or on this planet.
- Discuss how the definition of sustainability may change between different groups, such as the sustainability to Chinese citizens as compared to Americans or Europeans, or Xizhou residents as compared to Beijing or Shanghai residents.
- Create a personal list of what things (e.g. resources, values) should be sustained for future generations. Compare as a group.
- Ask questions throughout your trip to discover what sustainability means to the Linden Centre. Why is the Linden Centre concerned about being sustainable? What are the benefits to them? To you?
- Take a lead in identifying sustainable opportunities and practices in China that you have observed during this trip, past travels, or through your own reading/research. Share them with others.
- Understand the examples of sustainable practices in Xizhou, Dali, and/or the Yunnan Province (leads to an overview of the activities that the group will engage in).
- Reflect on how these activities deepen your understanding of sustainability. Do you believe you live a sustainable lifestyle already? What could you do differently, or better?
- Be a role model for others by educating and engaging your family, community, or organization on sustainable trends and opportunities, as learned during your visit and engagement with the Linden Centre.

Personal Learning Objectives, Goals, and Insights

Do you have learning objectives that are not covered in the list above?
What personal goals do you have for this trip?

In the space below, create one goal for yourself, or define one small project addressing a sustainability trend or challenge that you would like to address. Make a pledge to develop and implement that project or reach that goal upon your return home, and within the next 6 months. Share your pledge to complete your project and/or goal with the Linden Centre (and your group) on the last day of your trip.
Personal Goal(s):

Insights and notes from the program:
Exercise 1: Selecting Indicators for Sustainability

Tasks: to be completed in groups of 2 or 3
- Read about your team’s role-play assignment
- List your top 5 indicators of sustainability and list an action or strategy to promote each
- Write down a definition of sustainability that would serve as a mission statement for your organization. Keep it to 2-3 sentences.

Organizations to be assigned
- Multinational Company: You are concerned not just about being sustainable but about growing revenues to satisfy shareholder expectations. Other concerns include cost and quality of potentially scare resource inputs such as energy and water, the potential market for “green” products, affordable and capable labor in multiple countries, reliable global transportation, etc.
- Chinese Government: You are concerned about political stability, which means you will need to provide a modern lifestyle to 300 million people by 2050. You do not have enough water, energy or land to support this growth with current practices. You have tremendous assets: natural resources, capable government, motivated citizenry, budget surplus, etc.
- Bangladesh Government: You are concerned about political stability, because many citizens are starving, ill and losing hope. You have enough water, energy and land to grow the food you need, but are limited by a weak government, uneducated citizenry, and national debt. You also are concerned that climate change will ruin the aquifers of productive agricultural lands.
- The Nature Conservancy: You are an international non-governmental organization (NGO) with a concern for the conservation of resources and biodiversity, and thus the quality of life for communities. You have local offices in the Yunnan Province working to reduce the threats of climate change and development. You can buy, preserve, and manage land, and you can influence policy to some extent in the region.

Learning Outcomes:
- Illustrate that “sustainability” may mean different things to different people, organizations, governments, etc. The definition that gets advanced can depend upon the purpose and agenda of those advancing it.
- Appreciate the power of indicators to assist in defining sustainability in a way that can be used to hold decision makers accountable.
Illustrate that sustainability has social, economic, organizational, spatial, temporal and environmental dimensions.

Appreciate the need for a language and logic to communicate and defend sustainability.

Exercise 2: Mapping Sustainability

Learning Objectives:
- Analyze and navigate the political divides that may and can paralyze and polarize efforts to promote sustainability (including power, equity, nature vs. people, and faith in technology).
- See and navigate the tremendous common ground and opportunities that may and can exist in efforts to mobilize action around sustainability.
- Understand the importance of language and framing in finding/describing common ground.
- Learn about teamwork, rephrasing your responses to achieve consensus, and trying alternative forms of communication across different languages and cultures.

Tasks:
- Work in groups of 2 to 4 people on this exercise. Refer to the items listed on the next page.
- Take a large piece of paper or use a whiteboard to create a grid like this:

```
\[\begin{array}{c}
\text{Concerns of People} \\
\text{Concerns of the Poor} \\
\text{Concerns of Nature} \\
\text{Concerns of the Rich}
\end{array}\]
```

- In your small teams/groups, place each item somewhere along the continuum. The position should reflect whether the item is less or more important to promoting sustainable development.
- Discuss as a team/group why you are putting each item where you are putting it.
- Important: You may not rate all listed items as equally important. However, 50% must be rated as most important and 50% must be rated as less important (given the way the world works - limited time, money, etc. - only the items rated most important will receive any attention).

Be prepared for a larger group discussion on the following questions:
- What were the most debated items being placed on the grid, and why?
- What did you learn about the definition of sustainability through this exercise?
What patterns or criteria for sorting the list of items emerged or changed?
What did you learn about teamwork, negotiation, different political views, or compromise?

**List of Items for Exercise 2: Mapping Sustainability**

Chinese National Government
Local/Provincial Government
minimum wage
low unemployment
large national debt
fast-growing economy
public transportation
viable K-12 public education
freedom of speech
safety from neighborhood crime
poverty in developing countries
biodiversity (protection of endangered species)
wilderness
genetically modified food
mercury in air and water
smog
clean drinking water
public sanitation
reduce consumption
slow food movement
smart growth
public subsidy for wind/solar energy
hybrid cars
owning cars
recycle household waste
wastewater treatment
compost household waste
tax breaks for home energy conservation
life-cycle analysis of goods and services
product labels (green certification)
one child policy
population growth
corporate sustainability efforts (ie., Wal-Mart’s efforts to green its supply chain and facilities)
use of fossil fuels
Smart Grid
coal mining
Energy conservation through “green” building technology and energy saving appliances
Education programs
Cross-sector partnerships
Guest Engagement during travel
Religion
community development
Government Environmental Protection Agencies
historic and cultural preservation
sustainable fishing
environmental policy
ecosystem services
local churches
local temples
United Nations
World Business Council for Sustainable Development
The Nature Conservancy
World Trade Organization
hydroelectric power / dam construction
Green Globe
Geotourism

Exercise 1 and 2 used with permission from lessons by Bruce Hull, Virginia Tech University.
Exercise 3: Discuss and Rate the Linden Center

NOTE: This exercise may be best conducted during the last or second to last day of a trip, perhaps near the end of a meal.

The National Geographic Society’s “Places Rated” Survey is based on rating destinations under six criteria:

- environmental and ecological quality;
- social and cultural integrity;
- condition of historic buildings and archaeological sites;
- aesthetic appeal;
- quality of tourism management; and
- outlook for the future.

How does the Linden Centre (or Xizhou) rate under each of these criteria, in your opinion?

- Discuss each of the criteria listed above in your team/group - understand and come to agreement on each other’s definition of the criteria before rating the Linden Centre.
- As a group, rate the Linden Centre on each of these criteria. Use a scale from 1 to 10, with 1 representing a poor/weak rating, and 10 representing an excellent rating.
- Identify some innovative ideas and opportunities that may exist to address the lower-ranked criteria, i.e. criteria that received a rating under 5.
- Identify some specific things you believe the Linden Centre is doing well under those criteria that ranked above a 5.

Discuss as a larger group. Share your ratings, innovative ideas, and thoughts on what is being done well. Why did you reach those conclusions?

- As a larger group, come to a consensus on your rating of the Linden Centre under each criteria.
- As a larger group, identify and agree upon at least one innovative idea or opportunity for improvement under each criteria. Consider what may be feasible to implement in a shorter versus longer timeframe.
- The Linden Centre believes in guest/stakeholder engagement, learning by the exchange of ideas, and reflecting on their progress as a sustainable business and center of education. Thank you for your contribution to this progress!
Suggested Readings and Resources


“The long road to sustainability: Western consciences can do only so much to conserve forests” The Economist. 23 Sept 2010. http://www.economist.com/node/17062671


Travel Writer’s Guide to Sustainable Tourism and Destination Stewardship:

The Geotourism Study can help us understand the decisions we make as travelers, and how tourism businesses can respond, based on the attitudes/behaviors identified:
http://www.unep.fr/shared/publications/cdrom/WEBx0139xPA/statmnts/pdfs/tousae.pdf

As a “Gateway Community” to the Himalayas, and a business at the crossroads of ancient Silk Road, Xizhou and the Linden Centre could use this toolkit as a resource for their path to sustainability:

Initiative to Protect Colorful Yunnan (est. 2007 for years 2009 to 2020)
- See Introduction to Initiative (and click on “Main Actions” for specifics of what is proposed to be done): http://www.7c.yn.gov.cn/qcyn/434034414087831552/index.html
- Declaration of the Initiative:
  http://www.7c.yn.gov.cn/qcyn/434034414087831552/20070225/925.html
- Standards of Behavior under the Initiative:
  http://www.7c.yn.gov.cn/qcyn/434034414087831552/20070225/922.html
Maps

1. Watershed maps - see accompanying pdf.

2. Local artist-drawn map of the immediate area/community, such as a “cartoon map” (example: http://www.google.com/imgres?imgurl=http://www.mapcomarketing.com/img/map-sample-blythe-complete.jpg&imgrefurl=http://www.mapcomarketing.com/employment.html&h=359&w=450&sz=200&tbm=isch&tbnid=TfZtFJaPaW7eAM:&tbnh=93&tbnw=116&zoom=1&docid=vi6ARo6hUXx3M&sa=X&ei=YjRQT8PFAgKsgLqnum_Dg&ved=0CCsQ9QEwAA&dur=2). This is something that could be scanned at high resolution for use on smart phones. Limited edition prints (or any prints) could be sold on site.
This is the introduction slide.

Today we will be talking about how humans and our planet interact locally at the Linden Center, and in the larger contexts of the Yunnan Province and the world. We will also be talking about how you and others can make a difference in your daily lives. This is an interactive program, so we encourage you to ask questions, voice ideas, and get engaged in these issues that involve our present, our future, and future generations.

Interactive Part

But before we start discussing sustainability, we have to define it. Can a few of you share what you believe sustainability is, or what sustainability means?

[Options: Have a volunteer or the instructor write down the responses on a white board as they are voiced, or each person writes their thoughts on a piece of scratch paper and they are collected and read aloud.]
A Variety of Definitions of Sustainability:

A concept presented most formally at the Brundtland Commission in 1987, and often used today, sustainability is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Sustainability has also been represented as a series of three interlocking circles of interaction between the environment, and economic and social issues or actions. The concept of sustainability is a balance or intersection of all three.

Another approach to sustainability, primarily carried forward in the business sector, is to think of this three-way intersection as the “triple bottom line,” where you can’t have a balanced or long-term, sustainable business if you aren’t taking all three areas into account.

Interactive Part

Any additional thoughts on the definition of sustainability at this point?
Scientific evidence points to the fact that we are having a significant impact on the planet today.

**Interactive Part**

In what ways are we threatening the planet in the long-term? Brainstorm with a partner for a couple of minutes?

Potential responses (or sustainability trends) may include:
- Population growth and demographics
- Overuse of natural resources
- Pollution (water, air, land)
- Destruction of habitat/ biodiversity
- Human development – materialism, economic growth, etc.
- Climate change (and human/ resource migrations as a result of it)
- Energy consumption and limited resources of non-renewable energy sources
- Poverty, starvation
Today, many people are interested in sustainability and being more environmentally friendly.

**Talking Points:**
This graph is meant to illustrate how we currently use natural resources to make everything that we use and do everything that we do. We extract natural resources from our planet like coal, trees, and minerals to make products like electricity, toilet paper, and jewelry.

The manufacturing processes used to make the finished products uses a lot of energy in and of itself. We consume and use the products – and do not always find ways to reuse, share, or dispose of them properly. The natural resource products usually end up in landfills, or shipped to developing countries for disposal.

It is important to note that there is waste created at every step of these processes, and it all begins with the design of the systems.
As one case-in-point, China largely still uses coal as its main source of energy generation and consumption, based on this data provided in 2006 numbers. Notably, these numbers may have changed.
Talking Points: Since 2000, China’s energy use has increased dramatically, mostly due to the growth of the industrial sector and the rise of the consumption in the growing middle class. The U.S. has
Climate change is one of the biggest impacts of using fossil fuels for energy – the combustion of these fuels produce greenhouse gases.

There is science to back global warming as well as a global scientific consensus on this issue. Countries around the world are redefining their ways to life to reduce global warming and climate change. In addition, the Intergovernmental Panel on Climate Change (IPCC) is the international body of scientists studying this and releasing reports. It is made up of 1500 different scientists from all over the world.

-Ice core data explanation - There are trapped air bubbles that help scientists determine the average composition of the atmosphere and the average temperature.

-Point out the graph - There has been a natural range of CO2 in the atmosphere through the past 7 ice ages, the past 650,000 years, and we have never passed 300 parts per million concentration. Currently, we are in an ice age. However, as the graph shows, we are at 385 parts per million of CO2 in the atmosphere - too far away of the natural range and cycle.

-Also on this slide, mention at least one impact of global warming
This map is scaled to show which countries in the world produce the most CO2 emissions. It is easy to see the impact of both the U.S. and China through this illustration. Again, most of these emissions have to do with fossil fuel use in the industry and transportation sectors.

Image: http://www.viewsoftheworld.net/?p=1049#more-1049
What we “see,” versus what we “know” about pollution, how it affects our health and productivity, increasing greenhouse gas emissions and thus changes in our climate, etc.

- Pollution is created by our use of fossil fuels to produce energy – pollution of the air, water, and land
- Pollution affects humans and our planet’s ecosystems. There are over 6B people, over 5 million species of plants and animals and 8 different ecosystems.
- Pollution has significant health impacts on humans and has very good unbalancing the fragile ecosystems and the cycles we depend on.
- These are some of the major social costs of using fossil fuel energy - human health and ecosystem health degradation.

- The image shows Beijing’s pollution compared to a clear day – was this due to one of the “no driving” days they implemented for the Olympics.
So when we discuss sustainability and all these surrounding issues related to the environment, our social fabric, our economic development – what do we really mean?

What are we trying to sustain? Is sustainability really a good solution to the challenges facing the world today? Is it a defined path, or do we have to define, evolve, and adjust it to the conditions we face, as we face them? What are we trying to sustain? What would a sustainable world look like?

**Interactive Part**

Take a few minutes to brainstorm with a partner what you think should be sustained for the future generation? What do future generations need? What do they want? What is your vision of a sustainable world?

After small group discussions on this topic, have the groups share out with the larger group and allow a discussion and comments on this topic. See the next slide for additional questions about what might be included when you discuss sustainability.
Interpretation – are these some of the possible outcomes or ideas that may have been discussed in the previous slide?

Natural resources – water, timber, fuels, food, wildlife, soil etc.
Processes – nutrient cycling, water purification, water storage, pollination, oxygen generation, carbon sequestration
Ecological content – species, biodiversity, wilderness
Socio-economic capacity – education, technology, economy, GDP, institutions
Lifestyle and values –
Human health – clean air and water, safe food and products, EPA, NIH, healthcare, WHO
Non-linearity means that one cannot predict the exact result of a specific action. Results do not follow in a simply, straight path from the initial action. They are more complicated and interrelated.

**Interactive Part**
Based on what you know about your own local environment or ecosystem and any challenges it is facing, please share an example of non-linearity with the group.

Group discussion on these concepts of ecological systems.

What challenges do these points present to sustainability?
Ask this question to the group at large and request comments. Technology can include machines, but also things like political systems and language.

Picture on the left represents desalination – an example of how technology would be used to solve a problem of dwindling water sources. The picture on the right is an example of a renewable energy technology that converts the power of waves into energy.
The first question should lead to a discussion about the fact that sustainability is really about us – NOT about nature.

Individuals may recognize that there are different interpretation of sustainability but that some themes are most likely going to be constant. See if these themes can be pulled out through this exercise.

**Sustainability Definition Exercise**

- Individually consider this question:
  - Is sustainability about nature or about us?

- Write your own definition of sustainability (it may have changed).

- Individuals share with the group.
How do we achieve sustainability? 

- Green Infrastructure
- New Technology
- Political Policies
- Economic Incentives / Taxes
- Other ideas?

How do we achieve sustainability on the planet?

How do we achieve sustainability in China?

How do we achieve sustainability in Xizhou?

How do we achieve sustainability at the Linden Centre?
In the interest of time, we would like to highlight just one of these ways in which sustainability is achieved.

**Green Infrastructure**

What is it?
- Loosely defined as a way of thinking about natural spaces and resources as a type of infrastructure and redefining the way development occurs

Includes concepts of:
- **Ecosystem services** - placing value in the services that a natural resource provides (water filtration, carbon sequestration, etc.)
- **Smart Growth** - development to minimize damage to natural resources

Green Infrastructure is....

A few examples that you may not have thought of before include.....

Green Infrastructure in our region is.....
The Chinese government operates a series of 5-year plans which lay out policies for many aspects of Chinese life and operation.

The points highlighted here are how the current 5-year plan addresses the environment and aspects of sustainability specifically.

Though significant goals have been laid out in these policies, the execution and implementation of these policies on the local and regional levels is more difficult. Thus these goals may be hard to reach because there are many steps and layers of bureaucracy in the Chinese governmental structure.

Staff from the Linden Center should consider these questions and tailor this part of the lesson appropriately.

Linden Center & Sustainability

- How does the Linden Center define sustainability?
- What are the primary concerns of the Linden Center with regards to sustainability?
Tour the Linden Center with an eye for sustainability

Staff from the Linden Center should conclude the introductory lesson with a tour of the Linden Center that highlights all the areas where effort is being made to address aspects of sustainability.