



Millennium Ecosystem Assessment

# **EXPLORING THE FUTURE: MADRE DE DIOS**

**SCENARIOS WORKSHOP REPORT, May 28-29, 2005  
UNIVERSIDAD NACIONAL DE MADRE DE DIOS  
PUERTO MALDONADO, PERU**

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2006

**Prieto RP**, F Patiño, J Ugarte, SJ Velarde, C Rivadeneyra. 2006. *Exploring the Future: Madre de Dios. Scenarios Workshop report, May 28-29, 2005, Universidad Nacional de Madre de Dios. Puerto Maldonado, Peru.* ASB, World Agroforestry Centre and Millennium Ecosystem Assessment. 44p. URL: <http://www.asb.cgiar.org/PDFwebdocs/Prieto-et-al-2006-Scenarios-Workshop-Report-Puerto-Maldonado.pdf>

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**Workshop: Exploring the Future**  
**May 28-29, 2005**  
**Universidad Madre de Dios**

## **REPORT**

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## **ACKNOWLEDGEMENTS**

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The planning, organization and implementation of the workshop “Exploring the Future: Madre de Dios” has been made possible by the generous financial support of the Netherlands’ Government through its Programme for Cooperation with International Institutes (SII) of the Cultural Cooperation, Education and Research Department of the Education and Development Division of the Ministry of Foreign Affairs through a small grant provided through ASB-Partnership for the Tropical Forest Margins and the World Agroforestry Centre.

This workshop was organized as a collaborative event between the National Agricultural University La Molina (UNALM)-Faculty of Forestry, ASB system wide programme of the CGIAR, the World Agroforestry Centre (ICRAF) and with conceptual guidance from the Secretariat of the Millennium Ecosystem Assessment.

The workshop is a part of the ongoing ASB Scenarios project, originated from the ASB “Forest and Agroecosystems Tradeoffs in the Humid Tropics” Sub-global assessment for the Millennium Ecosystem Assessment.

The authors are particularly thankful to National University of Madre de Dios (UNAMAD) for providing their facilities; and to Elsa Mendoza from Acre University, for facilitating and sharing her vast experiences on similar scenarios work in the region.

Finally, this workshop would not have been made possible without the active participation of the students, resource persons and their employing institutions (ACCA, UNAMAD, ICRAF, Acre University and Embrapa) whose contributions are appreciated and herewith acknowledged.

## **1. OBJECTIVE**

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To develop an Exploratory Scenario exercise with university students living in the city of Puerto Maldonado (Madre de Dios, Peru) in order to understand their opinions about the future of the region, focussing particularly on the construction of the Brazil-Peru inter-oceanic highway.

The information gathered in this workshop will be used to create materials for distribution to the general public and will be given to the main institutions in the region. This will allow us to understand the points of view of the youth of Madre de Dios which can then be taken into account in the actions taken by the local institutions. Furthermore, the experience of applying the Future Scenarios methodology will allow us to create academic materials (a methodology manual) that will be used in university courses in the region.

## **2. SCHEDULE**

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### **Saturday, May 28 – UNAMAD CAMPUS**

8:00 – 9:05 a.m.	Participant registration
9:05 – 9:30 a.m.	Integration activity: “The past, present and future of...”
9:30 – 9:40 a.m.	Introduction of workshop activities
9:40 – 10:30 a.m.	Presentation: “Madre de Dios Yesterday” by Juan Carlos Arzola, artist
10:30 – 10:50 a.m.	Break
10:50 – 10:40 a.m.	Group Work: Defining the <i>focal questions</i> , identifying <i>change factors</i> , developing the <i>future scenarios</i>
2:10 p.m.	Lunch

### **Sunday, May 29**

8:20 – 8:30 a.m.	Review of previous day
8:30 – 10:40 a.m.	Scenarios presentation
10:40 – 10:50 a.m.	Break
10:50 – 11:20 a.m.	Presentation of work on scenarios in the region
11:20 – 11:50 a.m.	Group work: Implications of the proposed scenarios
11:50 – 12: 30 p.m.	Conclusions and evaluation of the workshop
12:30 – 1:00 p.m.	Closing remarks and distribution of certificates
1:30 p.m.	Lunch

### **3. REGISTRATION AND PARTICIPANT SELECTION**

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During workshop registration participants had to first provide their personal information and respond to the following three questions:

- What do you think Madre de Dios was like 20 years ago?
- How do you think the Transoceanic Highway will affect Madre de Dios?
- What do you think Madre de Dios will be like in 20 years?

The answers to these registration survey questions provide insight into the initial perceptions of participants prior to the workshop (Appendix 1).

#### **3.1 MADRE DE DIOS 20 YEARS AGO**

The participants of the workshop, who were university students, observed five characteristics of Madre de Dios' past:

- From an urban point of view, they think about Madre de Dios as a *disorganized small town that is not very populated, has few amenities and even fewer shopping centres.*
- Nevertheless, the city of Puerto Maldonado was seen as being *quieter.*
- They observed *less development than at present, particularly in the areas of communication and agriculture.*
- They point out that previously there was *less forest degradation* and that *corruption – in general – has increased.*
- The most noteworthy was *the lack of development in Madre de Dios in the past due to the neglect that this region has suffered,* the same neglect that some have experienced, such as in the areas of development, while for others it is a characteristic that denotes life in the region.
- Lastly, they noted that *in the past the people had fewer educational services,* which made their development difficult, if not impossible.

#### **3.2 THE TRANSOCEANIC HIGHWAY AND MADRE DE DIOS**

When questioned about the impact of the Transoceanic Highway on the Region of Madre de Dios, the participants had three different attitudes:

- The vast majority showed concern about the highway being built, particularly since it seemed possible that the people and commercial activities of Brazil and Bolivia would inundate the territory of Madre de Dios. The concern is so great that it has created a belief that there will be:
  - More delinquency, prostitution, and drug trafficking
  - Increased disorder
  - More sexually transmitted diseases (STDs)
  - Effects on flora and fauna
- A second group, who was not as apprehensive, noted that the construction of the highway would force them to be better prepared and that the youth of Madre de Dios should study to prepare themselves.
- A fifth of those registered in the workshop mentioned that there would be more development opportunities and a variety of businesses. This gave a positive outlook which is, at the same time, quite demanding since the population needs to be prepared for this change.

#### **3.3 THE FUTURE OF MADRE DE DIOS**

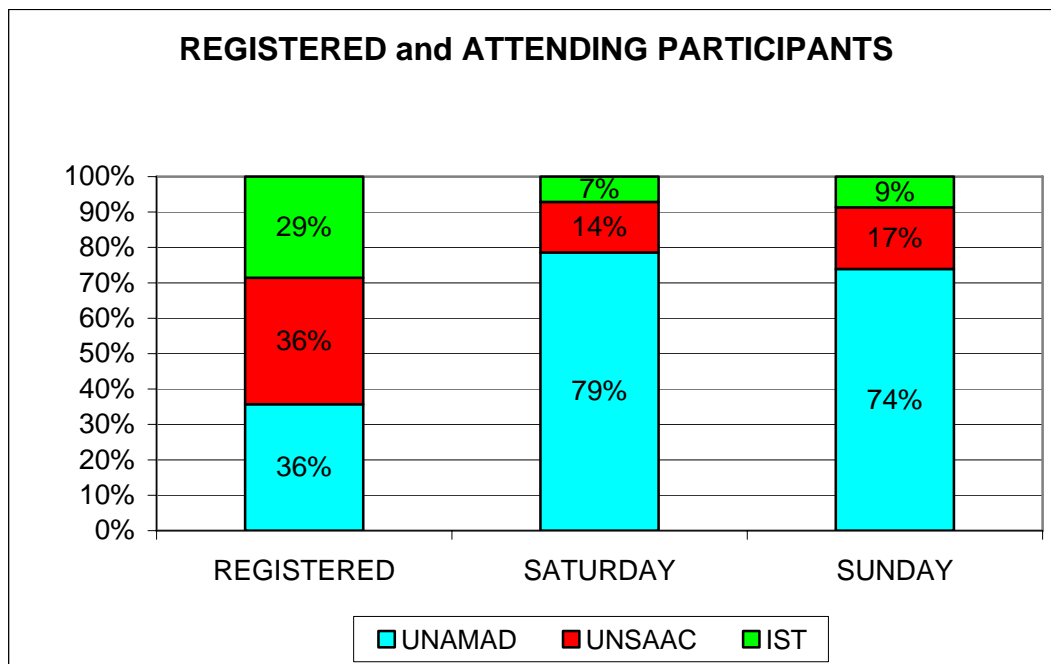
Despite the concern over the construction of the Transoceanic Highway, the youth studying at the university showed two positions on the future:

- The majority expressed a great optimism and yearned for Madre de Dios' development and a better quality of life. Among this group of *optimists*, there was also a subgroup who understood that development would be possible only with planning and preparation, while making the most of the opportunities in the region.
- A smaller group expressed a pessimistic attitude toward the future of Madre de Dios. It did not have confidence in the people or in the development projects, nor in the development policies transmitted either from civil society or from the state.

### 3.4 REGISTERED AND ATTENDING PARTICIPANTS

The following table compares the numbers of those previously registered with the participants who actually attended the workshop (each day):

	REGISTERED	ATTENDING PARTICIPANTS SATURDAY	ATTENDING PARTICIPANTS SUNDAY
<b>UNAMAD</b>	10	22	17
<b>UNSAAC</b>	10	4	4
<b>IST</b>	8	2	2
<b>Total</b>	28	28	23

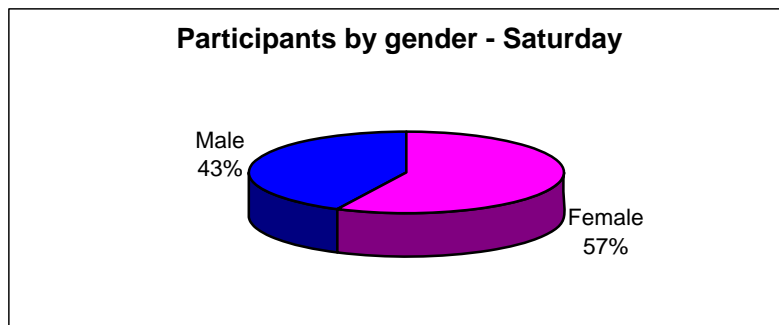


In regards to those participants who were registered and those who attended, we should note that of the UNAMAD's 10 registered participants, only two did not attend, and as the preceding table shows, 14 attendees were not previously enrolled in the workshop. The availability of the registration questionnaires (10 for each educational institution) and the fact that the workshop was held on the premises of UNAMAD explains this fact. Perhaps this may also explain – at least in part – the absenteeism of ISTP Jorge Basadre and UNSAAC students. From the former, six of the eight registered participants were absent and from the latter, seven of the 10 participants did not attend. However, one new participant did show up who had not previously filled out an enrolment form.

In general, this information was not alarming rather it was similar to any other workshop with an advanced enrolment.

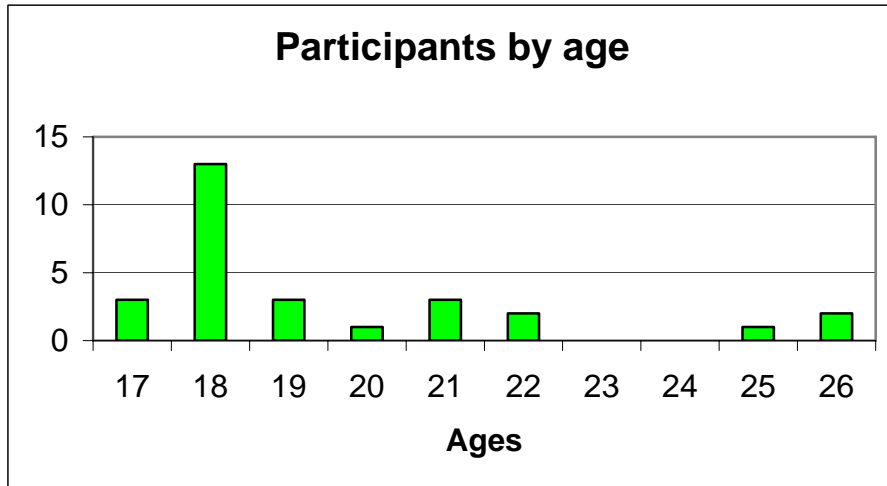
The following data shows the attendees' representation by gender and age:

<b>Attendees</b>	<b>#</b>
Female	16
Male	12
Total	28



<b>Ages</b>	<b>#</b>
17	3
18	13
19	3
20	1
21	3
22	2
23	0
24	0
25	1
26	2
total	28





For full information about participants, see Appendix 4.



#### **4. THE WORKSHOP**

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Participants arrived late, which meant that the workshop began at 9:05 a.m. with 12 participants in attendance. It began with an teambuilding activity entitled “The past, present and future of...”, which included a brief presentation and initial explanation, which began to break the ice and the distance between participants and brought much laughter and a good dynamic.

Participants paired up and spoke about their own past, present and future. Afterwards, each presented his/her partner. As a result, it was possible to have everyone who arrived early present themselves.

At 9:30 a.m. the “official” opening of the workshop was given by Julio Ugarte, who warmly greeted the participants with a smile and presented the workshop facilitators (Elsa Mendoza, Rocio Prieto, Francis Patiño, and Julio Ugarte).



Participants introduce each other using “The past, present and future of...” exercise.

##### ***4.1 MADRE DE DIOS’ PAST***

Juan Carlos Arzola, an artist, was invited to talk about Madre de Dios’ history. His presentation took approximately 50 minutes, including a few questions from participants at the end.

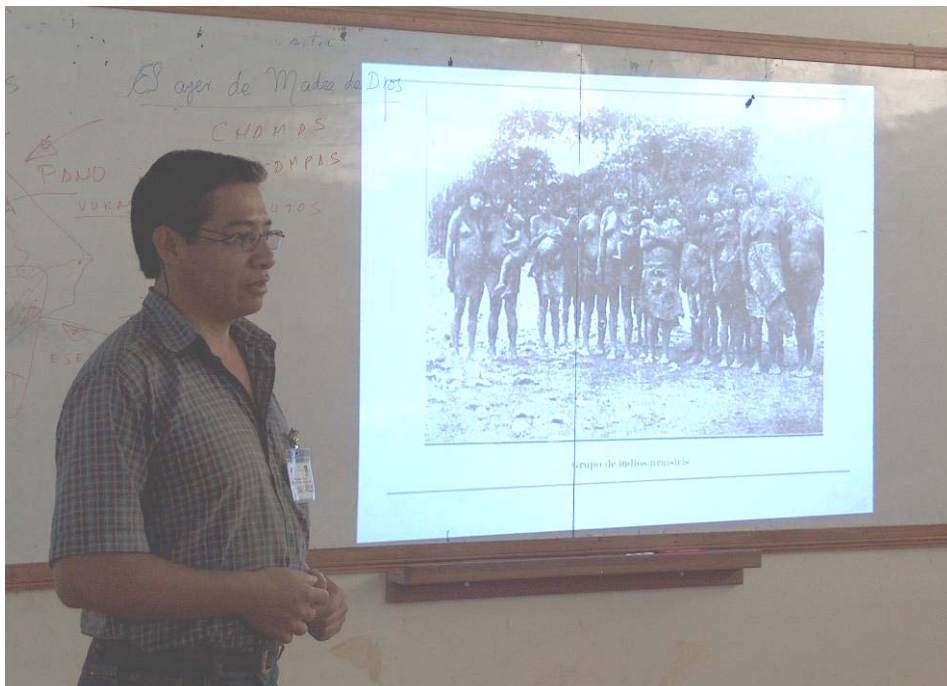
Mr. Arzola’s presentation touched on the following aspects:

- Many organizations in Madre de Dios want to save animals, plants, and the environment, but no one is concerned about preserving history.
- Thanks to Papal Nuncio he was able to read through the files of Catholic missionaries and was able to undertake a study on the different ethnic groups that have lived in the region , thereby giving an overview of the past 150 years of Madre de Dios’ history.
- It should be recognized that the native inhabitants of Madre de Dios have their own identity.
- In 1860 Markham arrived in search of the Peruvian bark tree.

- With the arrival of the Western *termites* (explorers, capitalists), came armed and trained indigenous people (*Chamas, Campas, and Witotos*), which resulted in an enormous massacre of indigenous people.
- Presently, those indigenous people who were not in contact with the Westerners are worried about their presence. They are even afraid of them, which is why they do not attack visitors.
- It should be noted that indigenous does not equal poverty. Poverty is a lack of values. Let us bring back the values that indigenous people could teach us.
- History was distorted/adapted by some priests.
- Little was written about Madre de Dios' history, especially given that little of Peru's history was written in by the centralist government.

Mr. Arzola did not only present certain historical facts about Madre de Dios, but also added in his own personal reflections to parts of his presentation. His feeling was that:

- Madre de Dios' problem has been misinformation and manipulation of information. If people were better informed, then many of the problems would not repeat themselves.
- For as long as ambition exists, there will always be great reasons to continue bleeding the earth and its people.
- NGOs do a lot of research, but do not give back to the locations researched.



Following Mr. Arzola's presentation, refreshments were served (beverages and *empanadas*).

After the break, Rocío Prieto presented the workshop map, the work plan, or in other words, how everyone would be working (in groups) from then on. Later, Julio explained the rules and regulations for the following days and Francis invited the participants who arrived late (the majority of them) to briefly present themselves. Subsequently, the participants were broken up into four work groups (each made up of seven or eight people), each with a designated facilitator.

Mr. Arzola's presentation ended by highlighting a few dates in the history of the indigenous people of Madre de Dios. Although it had limited academic rigour, he only presented the past of the Puerto Maldonado native communities and did not touch upon the region's Republican state nor its relationship with the central government. In any case, the presentation was

intended to help participants reflect on the past, while at the same time, it underscored the lack of knowledge that university students had about regional history, which was likely due to their primary, secondary, and post-secondary education.

#### **4.2 GROUP WORK**

With the students now in groups, the facilitators explained the methodology of defining the key players in each of the work groups. Each group would elect a secretary and a team representative for the presentation, but all individuals would be writing on coloured cards (see Appendix 5).

Role-playing the historical figures of Madre de Dios', delayed the process of defining the figures' and their interaction, but also helped to follow all the steps to reach the focal questions.

Finally, each group presented their findings and conclusions.



The majority of discussions were done in small work groups. These proved to be more effective than discussion in plenary.

**GROUP 1: Facilitated by Francis**

<b>ACTORS</b>	<b>PROBLEMS</b>
<ul style="list-style-type: none"> <li>• NGOs</li> <li>• Ranchers and farmers</li> <li>• Health sector</li> <li>• Press</li> <li>• Government</li> <li>• Immigrants</li> <li>• Lumber and Brazil nut companies</li> <li>• Business owners</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of exports</li> <li>• Lack of quality products</li> <li>• Lack of responsibility</li> <li>• Laws for NGOs to help them start up and distribute information</li> <li>• Manipulation of communication systems does not allow for proper agreements, but rather creates more confusion and ignorance</li> <li>• Lack of industrialization</li> <li>• Illegal trade</li> <li>• Lack of government support</li> <li>• Lack of boarder control</li> <li>• Tourism does not help the region</li> <li>• Centralism</li> <li>• The region is being taken advantage of but no benefits are given in return</li> </ul>

<b>FOCAL QUESTIONS (in 10 years)</b>	<b>CHANGE FACTORS</b>
<ul style="list-style-type: none"> <li>• Will the control laws take effect?</li> <li>• Will we be able to compete with Brazilian businesses?</li> </ul>	<ul style="list-style-type: none"> <li>• Education/Training</li> <li>• Awareness</li> <li>• Control</li> </ul>

**FUTURE SCENARIOS**

<b>POSITIVE</b>	<b>NEGATIVE</b>
<ul style="list-style-type: none"> <li>• THERE IS AWARENESS</li> <li>• THERE IS TRAINING</li> <li>• THERE IS CONTROL</li> <li>• Improved educational methodologies</li> <li>• More workshops being held (literacy, disabled)</li> <li>• More advanced courses</li> <li>• Professionals with a high level of success</li> <li>• Greater training in product processing</li> <li>• NGOs conscious that they are positively affecting the region</li> <li>• Government controls to start up NGOs and others</li> <li>• Controlling boarder zones</li> <li>• Intercultural exchange</li> <li>• An organization that protects the interests of business owners</li> </ul>	<p>Two years: Social – ethnic groups Worldwide - drugs</p> <p>Four years Ecological problems</p> <p>Sixth year Greater contamination, a decreased quality of life</p> <p>Eighth year: Social problems: unemployment, prostitution, crime, drug addiction.</p> <p>Ten years: Infiltration (black market influence)</p> <ul style="list-style-type: none"> <li>• Organizations stingily guard all the knowledge and don't give anything back</li> </ul>

	<ul style="list-style-type: none"> <li>• NGOs take advantage of the poor and their needs to obtain what they need from them</li> <li>• Organizations and NGOs have no control</li> <li>• No higher level courses</li> <li>• Mediocre professionals</li> <li>• Individuals who exert pressure without control</li> <li>• Teachers motivated by bad conditions, unemployed</li> <li>• Poor quality products, we are only consumers</li> </ul>
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Francis Patiño facilitating a work group.

**GROUP 2: Facilitated by Elsa**

It is important to highlight that this group was facilitated in a very different manner than the plans and expectations of the workshop. Elsa Mendoza, the facilitator, has a lot of experience in designing and managing workshops on local planning, such as session on input for regional and cross-border planning<sup>2</sup>. This series of workshops affected her methodological options, which were different from the building of future scenarios stemming from historical analysis and reflection. Her methods, as she pointed out, were based, first of all, on the defining the concepts and methodology; secondly, on learning and analysing the socio-economic information; and lastly (and here we are referring to all the inputs previously mentioned), reflecting on the future scenarios. However, as expected, despite the marked difference in methodology, some interesting results were obtained.

POSITIVE SCENARIO	NEGATIVE SCENARIO
<ul style="list-style-type: none"> <li>• Workshops on conservation of natural resources (2 years)</li> <li>• Support from authorities</li> <li>• Investing in natural resources</li> <li>• Not destroy the species</li> <li>• Talks, conferences, and new methods for establishing extraction norms and regulations (2 years)</li> <li>• Maintain control of deforestation</li> <li>• Taking care of the natural resources ourselves</li> <li>• Values training (2 years)</li> <li>• Increased ecotourism</li> <li>• Specialising ourselves in natural resources</li> <li>• Greater research into the flora and fauna of Madre de Dios to set up conservation methods</li> <li>• Laws should be put into practice (2 years)</li> <li>• Train the people in charge of INRENA (2 years)</li> <li>• Creating new Protected Natural Areas</li> <li>• Payment for environmental services</li> </ul>	<ul style="list-style-type: none"> <li>• Extracting natural resources only with capitalist methods</li> <li>• Established laws are not respected (2 years)</li> <li>• Increase in population in indigenous areas</li> <li>• The process of destruction (factories, areas with animals, etc) will be accelerated (2 years)</li> <li>• Improper use of technology</li> <li>• Corrupt politicians</li> <li>• Increased use of the natural resources with a correlated increase in population (Increase in forest degradation, soils, etc)</li> <li>• Inappropriate devastation of animals and forests</li> <li>• Increase in illegal trading of wild animals (in excess) (2 years)</li> <li>• Increased communication systems, particularly in native communities</li> </ul>

<sup>2</sup> By cross-border, we are referring to the planning of the border regions of Brazil, Bolivia and Peru.

## MADRE DE DIOS SCENARIOS

PAST SCENARIO	ACTUAL SCENARIO
<ul style="list-style-type: none"> <li>• Indigenous towns (Huanamey)</li> <li>• “Rubber fever”</li> <li>• Exploitation of <i>shiringa</i> (wood)</li> <li>• Slavery and death of indigenous people</li> </ul>	<b>GOOD</b> <ul style="list-style-type: none"> <li>• Biodiversity</li> <li>• Increased education</li> <li>• Natural resources</li> <li>• Increased tourism</li> <li>• Peacefulness</li> <li>• More health facilities</li> </ul>
	<b>BAD</b> <ul style="list-style-type: none"> <li>• Illegal and excessive tree harvesting</li> <li>• Loss of culture</li> <li>• Contamination</li> <li>• Corrupt authorities</li> <li>• STDs &amp; AIDS</li> <li>• Illegal trade of wild animals</li> <li>• Products are not competitive</li> <li>• Lack of infrastructure</li> </ul>

MAIN ACTIVITIES	MAIN THEMES
<ol style="list-style-type: none"> <li>1. Exports: Minerals, wood, and Brazil nuts</li> <li>2. Tourism</li> <li>3. Transportation companies</li> <li>4. Agriculture</li> <li>5. Business people</li> <li>6. Public servants and labourers</li> </ol>	<ol style="list-style-type: none"> <li>1. Human migration</li> <li>2. Values training</li> <li>3. Use of natural resources</li> <li>4. Infrastructure</li> <li>5. Population increase</li> </ol>

## FUTURE SCENARIOS

IN 2007	IN 2020
<b>POSITIVE</b> <ul style="list-style-type: none"> <li>• Workshops on natural resource conservation</li> <li>• Seminars and conferences</li> <li>• Values training</li> <li>• Putting laws into effect</li> <li>• Training the people from INRENA</li> </ul>	<b>POSITIVE</b> <ul style="list-style-type: none"> <li>• Appropriate use of natural resources</li> <li>• Conservation of resources</li> <li>• More protected natural areas</li> <li>• Economic growth</li> <li>• New products and activities that do not pollute</li> </ul>
<b>NEGATIVE</b> <ul style="list-style-type: none"> <li>• Extracting resources by capitalist means</li> <li>• Violation of established laws</li> <li>• Accelerated destructive process</li> <li>• Increased (excessive) illegal trade of wild flora and fauna</li> </ul>	<b>NEGATIVE</b> <ul style="list-style-type: none"> <li>• Increased deforestation</li> <li>• Destruction of resources</li> <li>• Ecological imbalance</li> <li>• Species extinction</li> <li>• Environmental contamination</li> </ul>





Elsa Mendoza facilitating a Scenarios work group.

**GROUP 3: Facilitated by Julio**

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**The Key Players:**

- Central government (health sector, public institutions, education)
- Harvesters (Brazil nut pickers, farmers, loggers, miners)
- Natives (shamans, natives)
- Tourism
- Migrants (pioneers, business owners)
- NGOs (researchers, NGOs)
- Church (missionaries, church)
- Journalists

Key Questions	Scenarios (Positive/Negative)	Change factors
Will the territorial rights of the native communities be maintained?	<p><b>Positive:</b> Only with the support of the government and an informed public.</p> <p><b>Negative:</b> We will have less land and an increased population.</p>	<p>Market/Biodiversity</p> <ul style="list-style-type: none"> <li>-Multicultural education</li> <li>-Native organizations</li> <li>-State control</li> <li>-An informed public</li> </ul>
Will biodiversity be conserved?	<p><b>Positive:</b> The cost of products from the coast will decrease. There will be increased tourism. There will be better access routes. Access to export our primary materials (wood, Brazil nuts, gold)</p> <p><b>Negative:</b> We will not have anything to export to foreign markets. Alienation. Displacement of work to areas outside of M-d-D.</p>	<p>Market/Biodiversity/Information/Taxes</p> <ul style="list-style-type: none"> <li>-Creation of services and businesses</li> <li>-Quality education</li> <li>-Sense of identity</li> <li>-Identification of activities</li> <li>-Truthful information</li> </ul>
Will it affect our link to the markets?	<p><b>Positive:</b> If we are all prepared for the life's challenges.</p> <p><b>Negative:</b> Due to the increase in an uneducated and unprotected population..</p>	<p>Religiousness/Information</p> <ul style="list-style-type: none"> <li>-State regulation</li> <li>-Information, access, distribution</li> <li>-Education</li> <li>-Control of migration/health</li> <li>-Sexual education</li> </ul>

## FUTURE SCENARIOS TO 2015

### BIODIVERSITY

<b>POSITIVE</b> <b>Conserving Biodiversity</b>	<b>NEGATIVE</b> <b>Loss of Biodiversity</b>
<ul style="list-style-type: none"> <li>• If we conserve biodiversity, we create positive factors for providing tourism services.</li> <li>• We will create a favourable scenario for biologists (zoologists, botanists, ecologists) who, under special management, will leave indications from their studies to the public.</li> <li>• Invite experts to undertake (research) studies here, and to train local personnel.</li> <li>• More jobs will be created for tropical forest experts, such as botanists and flora and fauna experts.</li> <li>• Tourism would increase because Puerto Maldonado is known for its biodiversity.</li> <li>• There will be more ornithology experts.</li> <li>• More support from conservation authorities and more environmental, tourism, and research services.</li> <li>• More parks, reserves, etc.</li> <li>• We will be able to restore endangered species.</li> <li>• Creation of a vivarium and a zoo</li> <li>• There will be more tourism in protected areas due to public (State) support. However, we will provide sex ed seminars to mothers and adolescents to ensure that the population will not increase.</li> </ul>	<ul style="list-style-type: none"> <li>• We will lose everything; we won't know what species are disappearing before they're even discovered.</li> <li>• There will be more contraband of wild animals.</li> <li>• Tourism will not exist</li> <li>• There will be trafficking of natural species</li> <li>• The reason why there was tourism in M-d-D will no longer exist – it will no longer be the Biodiversity Capital of Peru</li> <li>• We will lose endangered species</li> <li>• Less tourism</li> <li>• Animals, trees, and plants will disappear</li> <li>• If we do not opt for another type of income (wood) the regional economy will remain unstable.</li> </ul>

## MARKET INTEGRATION

<b>POSITIVE</b> <b>Good integration</b>	<b>NEGATIVE</b> <b>Poor integration</b>
<ul style="list-style-type: none"> <li>• Improvement to access routes</li> <li>• Decreased cost of living</li> <li>• Greater modernization</li> <li>• With adequate preparation, we could create our own industries with special state rules, which would be able to prosper and thus improve the economy.</li> <li>• The quality of products will increase</li> <li>• There will be opportunities to undertake productive activities since we'll have access to various markets. "More employment in general."</li> <li>• We will have more routes and access.</li> <li>• Better education</li> <li>• Increased tourism in M-d-D</li> <li>• The quality of our products will increase with more technology.</li> <li>• If there will be training and information available to the public, in 10 years there will be hotels, all kinds of businesses and MdD will have more revenue. We will export our products to other regions.</li> <li>• More revenue for the region</li> <li>• More jobs will be created.</li> <li>• The trade market will grow</li> <li>• The region's capital will grow in order to be able to build tourist areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to access the industrial market.</li> <li>• Population converted to being only consumers.</li> <li>• Fewer possibilities to sell our own products on the market now, since foreign products will be cheaper.</li> <li>• Greater industrial expansion that may perhaps decrease the biological diversity.</li> <li>• Displacement of locals by immigrants; locals relegated to remote areas.</li> <li>• There will be an invasion of products that are cheaper than ours which will increase poverty due to the lack of jobs.</li> <li>• Drug trafficking will increase in M-d-D.</li> <li>• An increase in illnesses</li> <li>• Illegal sale of endangered animals on the "black market"</li> <li>• Traditions will be lost if the population increases by mixing with other people from big cities, and the different regions would not have their own identity.</li> <li>• Increased consumption of products from the coast, rather than our own region.</li> <li>• Emigration will increase.</li> <li>• The population will decrease and there will be no competent professionals in the region.</li> </ul>

## LAND

POSITIVE	NEGATIVE
<ul style="list-style-type: none"> <li>• Indigenous people will conserve or increase their land</li> <li>• Culture will be conserved if there is an increase in population.</li> <li>• Indigenous extraction activities will increase.</li> <li>• Increased deforestation, livestock farming and forest extraction.</li> <li>• Improved tourism services and improved regional economy.</li> </ul>	<ul style="list-style-type: none"> <li>• Indigenous people will lose their land.</li> <li>• Loss of language and cultural identity.</li> <li>• More state support, being uprooted from their land.</li> <li>• Increased cross-breeding between natives and colonists</li> <li>• Increased Indigenous migration to the city.</li> <li>• Stricter protection laws that do work.</li> <li>• Increased deforestation and forests will only exist in protected areas.</li> </ul>



Julio Ugarte taking note of group work ideas.

**GROUP 4: Facilitated by Rocío**

KEY PLAYERS	PROBLEMS
<ul style="list-style-type: none"> <li>• Brazil nut pickers</li> <li>• <i>Goremad</i> (Regional Government of Madre de Dios)</li> <li>• <i>FADEMAD/FENAMAD</i> (unions)</li> <li>• Business people</li> <li>• Mining</li> <li>• Mining companies</li> <li>• Municipality</li> <li>• NGOs</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of communications methods</li> <li>• Lack of professionals familiar with reality of Madre de Dios</li> <li>• Lack of a sense of identity</li> <li>• Lack of environmental awareness</li> <li>• Lack of strategic alliances between institutions</li> <li>• Lack of investments</li> <li>• Politicization of employment opportunities</li> <li>• Centralism</li> <li>• Lack of technology to manufacture regional products</li> <li>• Conformism</li> <li>• Lack of certification</li> <li>• Poor management of the region's budget</li> </ul>

KEY QUESTIONS (in 10 years)	CHANGE FACTORS
<ul style="list-style-type: none"> <li>• Will natural resources be well managed?</li> <li>• What advantages or benefits and disadvantages will the highway to M-d-D bring?</li> </ul>	<ul style="list-style-type: none"> <li>• Greater investment</li> <li>• Strategic Peru-Brazil alliances</li> <li>• Regulations according to the area's reality</li> </ul>

**FUTURE SCENARIOS**

**NEGATIVE**

- Environmental regulations are not respected
- Economy take priority over the impact on natural resources

ADVANTAGES	DISADVANTAGES
<ul style="list-style-type: none"> <li>• Better methods of communication</li> <li>• Better knowledge exchange</li> <li>• Agreements between universities in Peru and Brazil</li> <li>• Development of new technologies</li> <li>• There will be technological advancements</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of identity</li> <li>• Unequal competition</li> <li>• Excessive environmental contamination and overpopulation</li> </ul>

**POSITIVE**

- Business people aware of the importance of appropriate use of natural resources and who work together with the products
- Proper classification of areas according to their usage
- Farmers trained to properly manage their resources for export and able to stand for their rights

- Greater investment for the development of agricultural production and industrialization
- There will be (economic and technological) alliances between Peruvian and Brazilian companies
- Competent people will be hired to manage resources
- More jobs will be created
- Peru and Brazil will unite forces to undertake scientific research



Students introduce the different scenarios for Madre de Dios.

## 5. EVALUATION

For the evaluation, a four-question survey was carried out (see Appendix 3). The first one was to grade on a 10-point scale based on how well objectives were achieved. The results were as follows:

Objective	Score										Total	Average
	2	3	4	5	6	7	8	9	10			
1				2		4	6	4		7	192	8.35
2			1		1	1	3	4		13	207	9.00
3	1			1		4	7	6		4	185	8.04

**Objective 1:** To present the Future Scenarios methodology as a tool for group planning. The attendees responded that this objective was accomplished 83.5% of the time.

**Objective 2:** To stimulate reflection on the future of Madre de Dios, particularly with regards to the impact of the Peru-Brazil highway. The attendees responded that this objective was accomplished 90% of the time.

**Objective 3:** To learn something new about the history of Madre de Dios and the projects that are taking place in relation to the future of the region. The attendees responded that this objective was accomplished 80.4% of the time.

The quantitative results indicate that the workshop had a high rate of efficiency.

**Question 2:** What do you think was the best part of the workshop?

The following opinions were noted:

- A very positive evaluation of the methodology, which allowed them to see the impact of learning the history and reflecting on the future of their region.
- Everyone liked the participation and the group work very much, which was one of the pillars of the methodology.
- They evaluated the organization of the facilitators and the knowledge of the presenters very positively.
- There was also a positive evaluation of the logistical aspects from the materials to the food.

**Question 3:** What do you think was the worst part of the workshop?

The criticisms were as follows:

- The lack of punctuality at the beginning of the workshop, on both days, which shortened the time available to carry out all the activities.
- Many believe that there should have been a much broader call for participants in order to reach a larger number of university students.

**Question 4:** Do you think that methodology of Future Scenarios could prove useful? Why?

The evaluation of the applied methodology was also encouraging:

- The methodology was well commended because it prepares them to face the future, not as a warning, but rather as the foundation for a plan of action.
- It is a key element to analyze the past, present, and future of the region, and to use this analysis to make decisions about Madre de Dios' development.
- Many requested to be invited to similar activities in the future.



By observing the data from the evaluation questionnaire we can conclude that, according to the participants, the workshop had a very positive outcome.

## **6. PROCEDURAL COORDINATION**

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The first meeting to discuss procedural coordination took place on Friday, the 27<sup>th</sup>. It was attended by the four facilitators and the reporter.

It basically involved a step-by-step revision of the procedures of the workshop, which would start the next day (see Appendix 2). With the arrival of Elsa Mendoza, (who, during this meeting was informed that she would be a facilitator) the review turned into a brief discussion on methodology. Elsa participated in the workshop after having extensive experience in facilitating workshops on local development planning, (four years in Brazil and two in Peru), which made it difficult for her to share in and adopt the Future Scenarios methodology proposed for this workshop. It also did not become completely clear that she, as a facilitator, had to take on this methodology.

On Saturday the 28<sup>th</sup>, after starting the group work, the facilitators had a short coordination meeting to find out how each group was progressing. It was thus observed that two groups each had exclusive facilitators, Elsa and Julio, and the other two facilitators, Francis and Rocio worked together to facilitate both groups at the same time, which made the work of these latter groups progress at a slower pace.

At the end of the first day, a feedback meeting was held in order to exchange opinions and reflections on the first day. At this time, Elsa made some comments and suggestions in regards to the methodology applied, since in her experience and opinion it would be better to define the concepts first and then work on the analysis in order to build the actual scenario of Madre de Dios. From there we could analyse the positive and negative aspects, decide on the change factors and (through questions) all this would have to be done for each production sector.

On Sunday the 29<sup>th</sup>, after completing all the work, the final feedback meeting involved quickly reviewing the evaluation form by skimming the positive and negative workshop comments. The meeting ended with the knowledge that, in general, the results were very positive.



Facilitators meet to discuss agenda and methods before the workshop.

## 7. CONCLUSIONS

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- The workshop accomplished its main objective of gathering the opinions of Puerto Maldonado's university students on the future of the region. It also allowed us to gather the necessary information in order to compile academic materials for distribution.
- There was little time for procedural coordination among the group of facilitators. It is worth noting that if the methodology has a large creative component, it becomes necessary for the facilitators to reinforce certain concepts and standardise general criteria in relation to the scenarios methodology.
- In regards to the methodology, we can state that it was very innovative and useful because it required a lot of participation from the attendees. It also requires a lot from the facilitators, who cannot just sit around, but must be really well acquainted with the methodology and be able to demonstrate their knowledge of the historical reality of the region, as well as its problems.
- The workshop proposes and gives emphasis to the presentation of the history of the region. However, objectives were not fully achieved due to the lack of time for this presentation, which demonstrated the corresponding historical framework, along with the various emphases and gaps in the presentation. This may be attributed to the lack of historical background on the part of the participants.
- The participants had very good, positive attitudes and they expressed their desire to contribute, learn, and participate. All mentioned that they had spent their time well, and showed a willingness to participate in a similar activity in the future. Nevertheless, the level of analysis and reflection on the part of the post-secondary students (the majority of whom were university students) was mixed. In some groups it was very fluid, and the work of the facilitators was thus also important as they had to search for ideas and find the best way to stimulate reflection in order to reach some conclusions about the Future Scenarios.
- Unfortunately, the strategy for the call for participants did not have the expected effect, as we had hoped to have a wider variety of participants in relation to educational institutions and programs of study in order to enrich the analysis activities. We recommend that future workshops improve their call for participants, as well as getting a variety of professional groups involved.
- If we compare the comments in the registration questionnaire from prior to the workshop, with those expressed in the evaluation forms, we can confirm that the workshop made clear, to those who participated, that by learning about the past and analysing the present, it is possible to achieve a more reliable and accurate vision of the future, and that both optimism and unfounded fears can be equally observed in the population.
- Attendance was within the expected range. Of the 28 enrolled, the same number participated on the first day and dropped slightly on the second day. In order to understand these indicators, it is important to note that the workshop took place on a weekend (Saturday and Sunday).
- The teambuilding activities were suitably used and well carried out and achieved their objectives.

- The logistical aspects were accomplished in an effective manner: materials, snacks, drinks and lunch were adequately arranged.



Participants of the Scenarios Workshop in Puerto Maldonado, Madre de Dios, showing their certificates of attendance.

## APPENDIX 1: REGISTRATION QUESTIONNAIRE

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### QUESTION 1: What do you think Madre de Dios was like 20 years ago?

1. Well, the city was smaller and less contaminated, and there were no animals under extinction such as river wolves, mountain bears, agoutis, etc.
2. I think it was like a small town, not very organized and not as populated. Things were not as big; there were not as many amenities or commercial centres.
3. There were few inhabitants, and even fewer parking lots. It did not have institutions like the ones that have been appearing lately. People were not well informed about things that were happening.
4. Well, since it was overlooked by the central government until recently, the population was full of immigrants who exploited its resources. There were less people in Puerto Maldonado.
5. Fewer people, there were no universities, lack of institutions and schools. The entire population was much smaller and the town in itself did not have the support to move forward.
6. Twenty years ago, Madre de Dios would have had half, if not less, of its current level of development, lacking many points, such as means of communication, rural development, etc., because we have been, and are, one of the most overlooked regions.
7. Madre de Dios was not recognized as a region rich in resources, nor in infrastructure.
8. I think it was very backward, with very little development.
9. I think it was at the beginning of its development and, therefore, it did not have the infrastructure and technology that it is slowly acquiring today. And that's how we will grow.
10. It was inhabited by fewer people. There were few businesses, few schools, and there were no universities.
11. With a lower population and few possibilities for professional success, and few technological advances.
12. Abandoned by the centralism that existed years ago; thus the region was not developed with such things as highways, etc.
13. The past is better than the present and worse than the future.
14. Well, 20 years ago it was not as populated as today and there were fewer possibilities for school, work and fewer illnesses. Nature is being destroyed (trees, gold, Brazil nuts, etc.)
15. Madre de Dios was a very quiet region and it had a better economic situation because there was more work and more integrity.
16. I think it was desolate, that there were fewer people, that there were fewer paved roads, and that the population was smaller.
17. It was a very rich region (it had gold, wood, Brazil nuts, etc.). But, on the other hand, it did not have good access to communication by road to other places.
18. Abandoned, without any means of communication.
19. The truth is that Madre de Dios was forgotten by our authorities. We believe that it did not have economic development.
20. It was really basic, but its indigenous origins were conserved. There were not a lot of agricultural or mining practices; however, it was more explored and there were more natural resources.
21. In the 80s, Madre de Dios did not have the same population or development as today. That is the same reason that Puerto Maldonado is a young town.
22. Well, according to the older people, Madre de Dios was abandoned and did not have natural any natural resources.

23. There is a proverb that states, "Do not think about what you might have done, but in what can be done". Without a doubt, Madre de Dios was characterised as a region that was almost forgotten due to centralism, lack of population, etc.
24. I believe that during the last 20 years Madre de Dios has been steadily increasing in population and its quality of life has been decreasing a lot more than before. Family income is low and it is not sufficient enough to have a better quality of life.
25. Somewhat less exploitation of its natural resources and somewhat more backward in its development.
26. There were no transit systems; it was an isolated region; its natural resources were not used carelessly; and there was not a lot of technology.
27. It is very difficult to make this comparison because before there was not as much corruption, but it was also not technologically advanced. Although, everything was more peaceful and the inflation was controlled.
28. Very little exploitation of the natural resources; there was less devastation of the forests. In terms of the culture and economy, it was even more backward.
29. A region that was almost isolated; the tribes were almost completely pure.

**QUESTION 2: How do you think the transoceanic highway will affect Madre de Dios?**

1. Well, if we continue as we are today, we will have hardly any professionals and hardly any projects. Puerto Maldonado is only a place of transit; it is only a "port". That is the reason that I want to become a professional.
2. It will have a huge effect: it will bring more jobs, import products, environmental impact. People will have to study.
3. For me it will be a big coup that we will have to defend against, as Brazilians and Bolivians will invade Madre de Dios. We have to be prepared for this likelihood.
4. The transoceanic highway will bring more advantages and disadvantages to our region. It will affect the highway, more routes will open up and all peripheral regions will be exploited. It will also bring more crime.
5. It will have a huge effect on the population because we are not currently prepared for what will come and the people are not sufficiently educated, nor do they wish to become more prepared for this eventuality.
6. It will generate a polarized development in the region. As it is a frontier region, it will give a huge impulse to business, but the big question is whether we are prepared for it.
7. Because of the lack of infrastructure we do not have quality restaurants, hotels or shops.
8. The effect it will have is that we will not be able to compete with Brazil; we do not have the ability to compete. It will also affect the environment because they do not think about environmental conservation, but about agriculture and cattle farming.
9. The main point is that it will destroy a large part of the flora and fauna in the city, and this is our unique feature in the world. On the other hand it would bring some advances, economic development, etc.
10. The majority of people in Madre de Dios are not professionals; thus this will affect the jobs, as these will only be given to people born outside the region.
11. It will affect us in many aspects: economic, social, cultural, etc.
12. There will be major change. The arrival of large businesses that transform raw materials will bring development to the region.
13. To begin with, a lot of disorder will occur. We will only be a place to stop and we will just be watching what others are doing. We cannot compete with an entire country.
14. I think it will have a huge effect in terms of STDs. Upon completion of the highway, the country that will be doing the majority of exporting will be Brazil, and Madre de Dios will end up being governed by the neighbouring country.
15. Well, in my opinion, there will be more jobs, but at the same time there will be more crime if our authorities do not do their jobs.

16. It will have a negative and positive effect at the same time. Negative because we have nothing to export, and positive because transportation will be faster.
17. Increase in crime, prostitution, drug trafficking, among others.
18. It will attract more opportunities, more business, tourists, etc. It will be a good step towards the future.
19. I don't think it will have any effect because the transoceanic highway is being built in the north of the country, and not in Madre de Dios. If it is built, it will bring a lot of economic development, tourism, etc.
20. The transoceanic highway will have absolutely no impact because it will not pass through this region. If it were to pass through here, it would affect us because there would be higher consumption of foreign rather than national products. I think in both cases there would be a downturn in the Peruvian economy.
21. There will be a strong environmental impact or ecological alteration. In part, the region and Peru will lose out because we are not developed. The population will increase and there will be social change (immigration). On the other hand, the highway will also bring development and competition to the region.
22. I think it will help the economy a lot. Overall, it will improve and there will be more work for everyone, as well as progress for our region.
23. The magnitude of this very important highway will have as positive an impact such as an increase in technological development, but there will also be negative consequences stemming from the development of a small town, things such as migration and perhaps disorganized development.
24. I think the transoceanic highway will have a tremendous affect on Madre de Dios, especially as our region is not prepared to face the boom that the highway will bring. We do not have much to offer in terms of products in order to compete with a country such as Brazil.
25. Well, both positive and negative. It will create more development opportunities, but the development will bring disadvantages along with it.
26. It will bring development, but it will also have a social and economic impact, etc. It will affect us both positively and negatively.
27. It will have an effect on the socio-economic aspects. Secondly, it will affect the wild flora and fauna. Our market is small compared to others.
28. It will have an effect on the ecology and the conservation of the environment. It will also affect the economic and social aspects in both a positive and negative way.
29. First of all, we are not prepared for this type of border elimination. We would simply be employees of the foreigners. In sum, it would affect us in a negative way.

**QUESTION 3: What do you think Madre de Dios will be like in 20 years?**

1. If we properly plan our lives and put sustainable development into practise, it would be like Lima or even better. We would escape poverty and marginalisation, and we would be able to persevere.
2. More organised, there will be more professionals, there will be buildings, industries, and along with the highway there will be more commerce.
3. I think it will be a real "port", if we do not take it seriously.
4. In 20 years, I think it will be a more developed region because, by then, there will be more universities and more professionals who are from here. The city will be more modern.
5. More developed, with more advanced positions so that we could compete with other cities and countries since Puerto Maldonado is rich in diversity. It will also have good professionals and this city will be known worldwide for its ecotourism.
6. Twenty years from now, it will be a region with more advanced development, but only as long as we take advantage of the opportunities and strengthen them by means of appropriate strategies. If we do not do this, the development will be minimal and slow.

7. In 20 years, Madre de Dios will have good communication systems, as well as economic and cultural development.
8. Very populated but with bad management of its development. Perhaps we will not be conservationists, but rather total exploiters.
9. There will be a population expansion with a lack of services. However, technology will advance due to the transoceanic highway.
10. It will be more developed in terms of population and economy. The transoceanic highway will bring more tourism and better learning centres.
11. In terms of our well-being, I hope we will be better of than we are now and that we will have all the advancements of the big cities in the world.
12. There will be changes in infrastructure and commercial movement between both countries (Peru-Brazil).
13. Perhaps better, perhaps worse. We cannot predict it ourselves.
14. I think it will be governed, but with less natural resources and with more illnesses, such as AIDS and others. And, if Madre de Dios is not governed, it will excel at something that Madre de Dios has and it will export it.
15. In my opinion, Madre de Dios will be worse off than what we are experiencing today. Of course we will have jobs, but also crime.
16. It will have a huge population and the region will grow.
17. It will not have any timber resources or gold. However, it will be a main attraction for the worst criminals. It will also be a more modern city because of the cultural exchange.
18. Developed, a lot bigger. It will have everything.
19. It will be somewhat more developed and somewhat different, with businesses that may bring development to Madre de Dios. Above all, there will be immigrants from other regions.
20. Extremely fertile. It will be more stable with the conservation of its natural resources. We will be more balanced and better organized. If the laws are carried out, we will have a developed region with a great outlook.
21. With the highway, there will be greater urban expansion and physical development, but at the same time there will be alteration of the ozone layer and pollution. Without the highway, development will be minimal and slow, but there will be more natural open spaces and pure air, which protects us from illnesses.
22. Since the highway is coming, I suppose it will be more populated; there will be more businesses, more industries and more income for all.
23. We all aspire to achieve our objectives or goals. That is the reason why, with the construction of this very important road network, Madre de Dios can achieve a sustainable development for the well-being and progress for everyone.
24. For me, in 20 years Madre de Dios will be completely populated. Perhaps there will be an increase in tourism and we might have access to other regions with the paved road.
25. Somewhat more exploited and with new people. I don't know if the development that is coming will be sustainable.
26. It will improve the structure, infrastructure and there will be new technologies. But, there will also be more exploitation of the resources, which may perhaps be excessive.
27. If we continue to be governed by the same political system that we have now, we will be a lot worse off. There is a great need for a government similar to that of Cuba, for example.
28. We hope that it will be more developed economically. We hope that our forests may be managed better than they are now, for greater profits.
29. Population increase, greater income for people from outside the region. Perhaps more industrial development.



## APPENDIX 2: DEVELOPING A “PARTICIPATORY SCENARIOS” MANUAL

### Table of Contents – Puerto Maldonado

Sessions based on the steps outlined in the Chiang Mai 2004 training workshop.

\*\*\*We will **experiment** with the direct practice in the scenarios exercise, and later we will explain the theory. It is an innovative methodology that will allow us to take advantage of the initial energy of the group and stimulate their creativity.\*\*\*

Session	Topic	Main Objective/ Activities	Methodology	Responsible	Time	Resources and Materials
0	Organising team: -Francis -Sandra -Rocio -Julio -Manuel  Reporter: -Carlos	<ul style="list-style-type: none"> <li>• Promotion strategy</li> <li>• Group integration</li> <li>• Review work manual (methodology)</li> <li>• Define responsibilities</li> <li>• Refine agenda and details</li> </ul>	<ul style="list-style-type: none"> <li>• Direct conversations and virtual communication (through the different addresses of the members of the organising team)</li> </ul>	<ul style="list-style-type: none"> <li>• Organising team</li> </ul>	2 months and 0.5 days before the workshop	<ul style="list-style-type: none"> <li>• Internet</li> <li>• Time and expenses for transportation to the meeting place</li> </ul>
<p><b>Summary and/or Session Comments</b></p> <p>The main product was the invitation card sent to the universities with the workshop program and the student enrolment form. That is how we identified the main logistical requirements relating to the hiring of personnel:</p> <ol style="list-style-type: none"> <li>1. Logistics assistant</li> <li>2. Journalist/Reporter</li> <li>3. Snacks/Lunches</li> <li>4. Cleanliness of the location</li> <li>5. Bulletin distribution after the workshop</li> </ol>						

Session	Topic	Main Objective/ Activities	Methodology	Responsible	Time	Resources and Materials
I	Welcome and Introduction	<ul style="list-style-type: none"> <li>• Participant registration and assigning work groups</li> <li>• Introductions and breaking the ice. Welcome and presenting the “Work Team”</li> <li>• Presenting the workshop objective, the general methodology, some “rules” and logistical aspects according to the day’s agenda.</li> </ul>	<ul style="list-style-type: none"> <li>• Registration cards</li> <li>• Activity: “The past, present and future of ...” (see session comment *)</li> <li>• Presentation and Workshop Map (see session comment **)</li> </ul>	<ul style="list-style-type: none"> <li>• Julio and Rocio</li> <li>• Francis</li> <li>• Rocio and Julio</li> </ul>	<p>10 min</p> <p>40 min</p> <p>10 min</p>	<ul style="list-style-type: none"> <li>• 30 microphones with cords</li> <li>• 30 cards with names and numbers of the work groups (approx. 2 sheets of white cardboard)</li> </ul> <p>Workshop Map (2 white flip chart)</p>
<p><b>Summary and/or Session Comments</b></p> <p>* The activity consisted of pairing up (making sure that the persons did not know each other) and discussing the past, present and future of each member of the pair, 1 minute for each. Afterwards, presenting their partner to the rest of the participants. This activity accomplishes two objectives: breaking the ice and a first attempt at the scenarios methodology applied to the life of each participant.</p> <p>** It is very handy to use the workshop map because it helps the participants follow the procedures and not get lost with all the different sessions.</p>						

Session	Topic	Main Objective/ Activities	Methodology	Responsible	Time	Resources and Materials
II	Presentation on the history of the region.	<ul style="list-style-type: none"> <li>To reflect on all the impacts and changes in the past that might influence the future of the region.</li> </ul>	<ul style="list-style-type: none"> <li>Presentation: Madre de Dios' Past</li> </ul>	<ul style="list-style-type: none"> <li>Juan Carlos, Arzola</li> </ul>	30 min	Historian or person familiar with the history of the region.
III	Analysis of uncertainties and definition of key questions (see session comment *)	<ul style="list-style-type: none"> <li>Main players in the history of Madre de Dios</li> <li>Current problems in Madre de Dios</li> <li>Main concerns for the future of Madre de Dios. Key questions.</li> </ul>	<ul style="list-style-type: none"> <li>Forming work groups. Brainstorm of ideas for work groups.</li> <li>Brainstorm of ideas on cards.</li> <li>Brainstorm of ideas on cards.</li> </ul>	<ul style="list-style-type: none"> <li>1 facilitator per work group: Rocio, Francis, Julio, Elsa</li> </ul>	10 min  20 min  30 min	<ul style="list-style-type: none"> <li>3 sheets of cardboard cut up into cards</li> <li>20 felt pens No. 47 and 20 No. 56</li> <li>1 roll of adhesive tape for the flip chart paper</li> </ul>

**Summary and/or Session Comments**

\* The participants' analysis determined that by looking beyond the uncertainties, the current problems would be identified.

Session	Topic	Main Objective/ Activities	Methodology	Responsible	Time	Resources and Materials
IV	Building the future scenarios for Madre de Dios	To develop the story of various future scenarios in Madre de Dios	<ul style="list-style-type: none"> <li>• Discussion in work groups</li> </ul>	<ul style="list-style-type: none"> <li>• Work groups</li> </ul>	About 2 hours	See below
IV.1	Identifying the change factors	To identify the principal change factors that might change the answers to the focal questions	<ul style="list-style-type: none"> <li>• Discussion in work groups</li> </ul> <p>Note: The facilitator must help identify the change factors and classify them as “uncertainties” or not.</p>	<ul style="list-style-type: none"> <li>• Facilitators</li> </ul>	30 min	<ul style="list-style-type: none"> <li>• 3 sheets of cardboard cut up into cards</li> </ul>
IV.2	Developing the story of Future Scenarios (see session comment *)	<ul style="list-style-type: none"> <li>• To assign roles relating to the change factors</li> <li>• Interaction between the players across time.</li> <li>• “Verbalize” the scenarios</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion in work groups</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitators</li> </ul>	10 min	<ul style="list-style-type: none"> <li>• 3 sheets of cardboard cut up into cards</li> <li>• 10 sheets of craft paper</li> </ul>
IV.3	Scenarios Presentation	<ul style="list-style-type: none"> <li>• Explain the scenarios proposed by each group</li> </ul>	<ul style="list-style-type: none"> <li>• Plenary</li> </ul>	<ul style="list-style-type: none"> <li>• Assign someone in each group</li> </ul>	60 min	<ul style="list-style-type: none"> <li>• 8 flip charts divided into squares</li> <li>• 8 blank flip charts</li> </ul>

**Summary and/or Session Comments**

\* At first we considered using a timeline on which to build the scenarios; however, during the workshop we noted that the participants’ critical analysis skills were not very strong. Thus, it was preferable to carry out the scenario building directly at 10 years, without carrying out the timeline. Similarly, it was not necessary to do the comparison of the proposed scenarios because the groups generated one positive and one negative scenario while building them.

Session	Topic	Main Objective/ Activities	Methodology	Responsible	Time	Resources and Materials
V	Presentation of Scenario works in the region (see session comment *)	To enrich the work done so far and to present concrete examples of the methodology being applied.	<ul style="list-style-type: none"> <li>Power Point: "Evaluation of the possible social, economic and environmental impacts of paving a highway to the Pacific" (BR317 – Iñapari-Mazuko) Elsa Mendoza-IPAM/UFAC-PZ</li> </ul>	<ul style="list-style-type: none"> <li>Rocio</li> </ul>	20 min	<ul style="list-style-type: none"> <li>Slide Show</li> </ul>
<b>Summary and/or Session Comments</b>						
* Despite the facilitators' attempts at motivation, there was not a lot of participation observed on the part of the students. This could have been attributed to the level of the presentation was very high in relation to the information that is normally imparted in the educational institutions in the region.						
VI	What are Future Scenarios?	Using general concepts, explain the Future Scenarios methodology and reflect on its effectiveness as a decision making tool.	<ul style="list-style-type: none"> <li>Presentation-Discussion</li> </ul> <p>Note: Illustrate the dissemination steps</p>	<ul style="list-style-type: none"> <li>Rocio</li> </ul>	15 min	Readings and supporting bibliographic material
VII	Workshop evaluation	Gather the students' impressions of the workshop	<ul style="list-style-type: none"> <li>Questionnaires</li> </ul>	<ul style="list-style-type: none"> <li>Facilitators</li> </ul>	10 min	<ul style="list-style-type: none"> <li>Questionnaire forms</li> </ul>
VIII	Closing	Final comments and distribution of Certificates	<ul style="list-style-type: none"> <li>Presentation</li> </ul>	<ul style="list-style-type: none"> <li>Francis</li> </ul>	30 min	<ul style="list-style-type: none"> <li>Certificates (5 sheets of Canson cardboard or thread and colour ink cartridge)</li> </ul>

IX	Distribution and communication	To define the strategies for communicating the workshop results	<ul style="list-style-type: none"> <li>• Meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Work group</li> </ul>	1 day	
X	Writing the reports	To document the workshop	<ul style="list-style-type: none"> <li>• Elaborating the following documents: -Technical Report</li> <li>-Answers to the comparative questions</li> <li>-Financial Report</li> <li>-Bulletin of the distribution of workshop results</li> <li>-4-hour Module from the Future Scenarios that could be introduced in the curriculum of natural resource management courses at the university level</li> </ul>	<ul style="list-style-type: none"> <li>• Work group and hired reporter</li> <li>• Work group</li> <li>• Hired reporter</li> <li>• Rocio</li> </ul>	2 months	<ul style="list-style-type: none"> <li>• 1 thousand sheets of Bond paper</li> <li>• 1 black and white ink cartridge</li> <li>• Printing and distribution of information bulletins</li> </ul>

### APPENDIX 3: EVALUATION FORM AND RESULTS

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**QUESTION 1:** Assess if the Objectives of the workshop were accomplished on a scale of 0 (not at all) to 10 (excellent).

**Objective 1:** To present the Future Scenarios methodology as a tool for group planning. The attendees responded that this objective was accomplished 83.5% of the time.

**Objective 2:** To stimulate reflection on the future of Madre de Dios, particularly with regards to the impact of the Peru-Brazil highway. The attendees responded that this objective was accomplished 90% of the time.

**Objective 3:** To learn something new about the history of Madre de Dios and the projects that are taking place in relation to the future of the region. The attendees responded that this objective was accomplished 80.4% of the time.

**Results:**

	RATING										
Objective	0	1	2	3	4	5	6	7	8	9	10
1						2		4	6	4	7
2					1		1	1	3	4	13
3			1			1		4	7	6	4

**QUESTION 2: What do you think was the best thing about the workshop?**

1. I found it excellent, but the best part was the snacks.
2. The presentation about Indigenous villages in Madre de Dios which allowed us to understand the past and because of this we can become aware in order to preserve our culture.
3. For me, the best part of the workshop was the interaction, which included defining key questions, change factors, and most of all I enjoyed the theme of the workshop.
4. For me, the best part of the workshop was that everyone participated so we could get to know each other's various points of view on our own past, present and future. They thought us to explore the future.
5. The presenters were knowledgeable about the topic, and gave us confidence and support.
6. That they taught us about issues that we should have already known.
7. It motivated the generation of ideas from all participants about a reality that is important to all of us. We also tried to see a future that even though we cannot envision it through the signs that are there, we could hypothesize in what direction we are headed.
8. I think it was the group work since it brought out new and diverse ideas and allowed us to debate the future of Madre de Dios.
9. Learning about scenarios that could become reality; the knowledge of the facilitators on the topic; and the future perspectives of Madre de Dios 10 or 15 years from now.
10. Yes, I liked it a lot. It was very interactive and the people in charge were very knowledgeable and entertaining. I am satisfied.
11. The introduction of relating potential future events with current challenges that was discussed in the last few presentations.

12. We had the necessary support from the facilitators as well as the material to elaborate our perspectives and others (multimedia projects).
13. Talking about the past, present, and future of Madre de Dios and things that happen around us.
14. The new ideas that we learned and a better way of seeing our realities.
15. When questions were raised about how it was going to affect our region and how we could change this negative situation to a positive one.
16. The exchange of ideas between students, with freedom of expression (respective each other's opinions) about possible solutions.
17. Personally, I liked everything about the workshop. While I was participating in the workshop, I learned that the past helps us reflect on the present and improve our future.
18. That they handed out snacks, and also that they were well prepared in their presentations.
19. The exchange of ideas and the enthusiasm of all participants.
20. The group dynamics and thinking about our future; how we should change the present to make it better from now on; and the methodology that they used to teach us about our reality.
21. I learned a bit about what might happen in the future by analysing both positive and negative aspects. The facilitators were knowledgeable and helped us a lot.
22. Going through the scenarios.
23. Personally, the most important thing was learning about the history and reality of Madre de Dios and learning how to imagine future scenarios.

**QUESTION 3: What do you think was the worst thing about the workshop?**

1. I believe that it was almost perfect. It was unfortunate that there weren't many students.
2. There was some ambiguity surrounding the topic and its objectives.
3. Honestly, it seemed that everything here was portable. I don't feel that I wasted my time at any point and everything was useful.
4. I realized that we didn't actually know about our ancestors' history or that of our region. I had limited myself to knowing about other things and ourselves.
5. The lack of punctuality.
6. That we didn't start on time as scheduled.
7. Nothing, everything was fine.
8. I believe that it was timing since we needed more time to further present all our ideas.
9. I don't think that anything was bad. Everything was fine; the topic was well done; good presenters, good food.
10. That we didn't have bigger q-cards on which to write our opinions. Those that we used seemed very small.
11. There was no publicity.
12. Nothing about the workshop in itself, but perhaps there could have been more information about it prior to starting the workshop which might have meant that there would have been more participants.
13. Nothing.
14. Nothing.
15. The final presentation on the scenarios (not all the scenarios). Some people, because they were not confident enough about a scenario, didn't clearly state what they felt was the long-term planning for the region's future.
16. The delay in starting the workshop – it should have started on time.
17. Nothing.
18. I can't think of anything.



19. Not having better presenters and the delay.
20. Personally, I felt that it was very good, but we needed more enthusiasm from the people who attended the workshop, since they didn't take it seriously. With regard to the people who made the workshop happen, there needed to be more images about our reality.
21. I wouldn't say that it was the worst thing about the workshop, but I felt that there should have been more participation from institutions and people involved to better analyze weaknesses and thus direct decision making.
22. Nothing.
23. I wouldn't say it was the worst thing, but rather a critique that they should publicize the workshop a month before it began. That way, there would have been more students in the workshop.

**QUESTION 4: Do you think that the Future Scenarios Methodology can be useful? Why?**

1. Yes, it is useful because we are thinking about the future and we know more or less what will happen so we will be prepared for what is ahead of us.
2. Yes, because it helps us have prior ideas to help us make decisions. And, no, because they are based on assumptions that are not politically possible.
3. Of course it is useful, and not only because of the highway, but also because this could be applied to any topic, such as life projects, and can even be used as a basis for studying environmental impacts and/or social or political problems.
4. The fact of building future scenario helps us to see different aspects, which allows us see different realities in which the key players are involved. We thus learn and think about the future.
5. Yes, because we are learning and compiling information about the positive and negative aspects of the future of our region.
6. Yes, because we can see or analyse the positive and negative changes that occur in a region or a country.
7. Yes, it allows us to anticipate possible good or bad realities in future situations and we can thus choose the path that leads us to the good part based on this methodology in which we are the key players.
8. Yes, because this way we can prepare ourselves today for the future and can prevent environmental accidents. These scenarios prepare us to face new challenges. I think youth groups should be formed that would start working on this now with support from you, if possible.
9. Yes, because it helps us see what might occur. I think it's a good way to prepare for the future. Always do something important, like this course, and invite me.
10. Yes, so that we can reflect on the actions that we take every day and to realize that we have a lot of opportunities that we don't take advantage of.
11. Yes, because they can be used as development tools to control the future.
12. Yes, it's useful because it helps us have clear perspectives on the problem of the future.
13. Of course, because they will depend on those who lead the development of the country in all aspects.
14. Yes, it is very good, because this way we can prevent abrupt changes that might occur.
15. Yes, that way we can predict and prevent future events and avoid bad situations while facing a future without thinking ahead. This way, we can change a future that is bound to have negative aspects into a future with positive aspects.
16. It may help, given that it is a way in which different people can participate and give their ideas and strategies that may help to improve the quality of life.
17. Yes, because we are already conscious of what the future might have in store for us.

18. Yes, because it helps us analyse the past, present and future by responding to problems.
19. Yes, because it prevents us and prepares us for what might occur later on and we can thus take part in the changes.
20. Yes, we learn about the reality of the region in which we live and how to improve the future for the next generation. It is necessary because through these methodologies you can change the future, for the better for everyone, and especially for the region. It would also change the perspective of the way people think. I think there should be more workshops like this one so that people can become aware of the reality in which we live.
21. Yes, because it is an possibility of seeing what our future would be lie in 10 or 20 years; and what ideas we can bring and what decision can be made so that this scenario would be the best one possible. Thank you for offering this course and I hope it continues like this. I learned a lot.
22. Yes, because it is a method of thinking about various alternatives for the future and for research.
23. Yes, because this way we can see a reality, whether it's in the past, present or future and be able to make proposals in order to continue improving and thus help the region distinguish itself.

#### APPENDIX 4: LIST OF PARTICIPANTS

##### Workshop: “Exploring the Future”, Puerto Maldonado, May 28, 2005

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#### **Puerto Maldonado, 29 May, 2005**

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23	Catherine Ruby Márquez	22	UNAMAD	Ecotourism	

Participants:  
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## APPENDIX 5: WORK GROUPS

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### Workshop: “Exploring the Future”

May 28-29, 2005

Auditorium of the *Universidad Nacional de Madre de Dios*

#### **WORK GROUPS**

##### **Group 1: Francis**

Karla  
William  
Mónica  
Eva  
Banesa  
Percy  
Romel

##### **GROUP 2: Elsa**

Luis Humberto  
Damelia  
Marshory  
Jorge Luis  
Alexis  
Eusebio  
Erika  
Nemin

##### **GROUP 3: Julio**

Luzbella  
Lino  
Therany  
Lidia  
Margot  
Adelia  
Jusmell

##### **GROUP 4: Rocio**

Frank  
Liliana  
Lezbeth  
Flor de Liz  
Ronald  
Carmen