

**Viet Nam Bamboo
Resources
Conservation for
Sustainable
Development**

**Conservación de
Viet Nam Bamboo
Resources para el
desarrollo sostenible.**

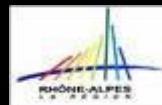
Dr. My Hanh DIEP



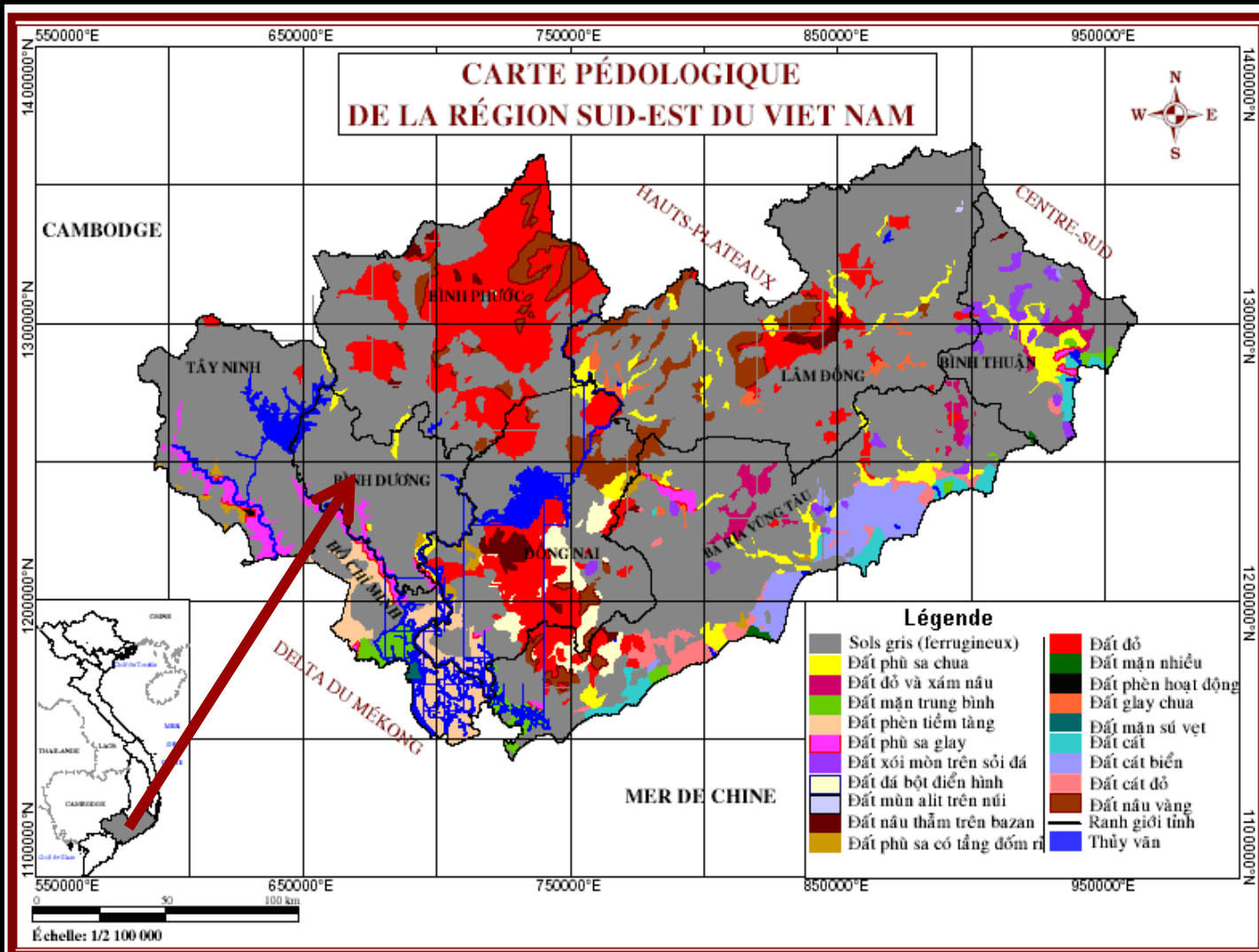
Viet Nam Bamboo Resources Conservation

Phu An Bamboo Village

Equatorial Prize 2010 of UNDP Jardin Botanique Francophone



Site of Phu An Bamboo village: in the iron triangle



Village de Phu An situé au bord de la rivière où la biodiversité est restée très riche

Phu An Bamboo Village is located along a river where biodiversity is varied



**La biodiversité au bord de la rivière :
des fleurs de beauté simple mais saisissante**

**The biodiversity along the river :
flowers simply beautiful but captivating**





Avant et après l'aménagement du terrain pour transformer le triangle de fer en triangle vert

Before and after planning to convert the Iron Triangle into a Green Triangle

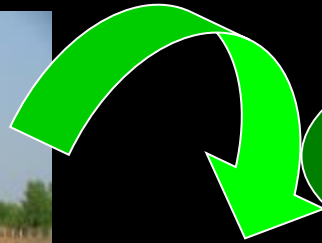
Changement des conditions sociales:
le conservatoire, un lieu de bien être pour les villageois

**A change in social conditions :
Botanical Conservation – a new look for the community**

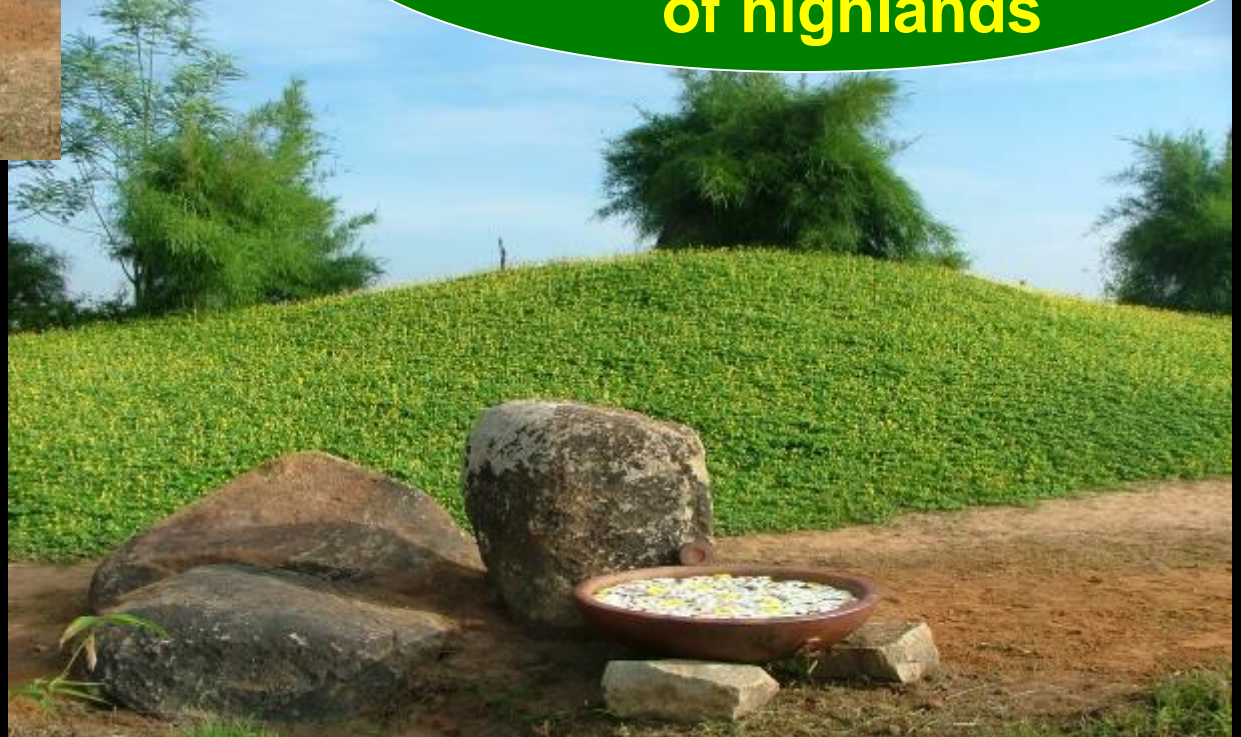


Avant
l'aménagement

Before the planting



Après la plantation
des bambous des Hauts Plateaux
**After planting bamboos
of highlands**

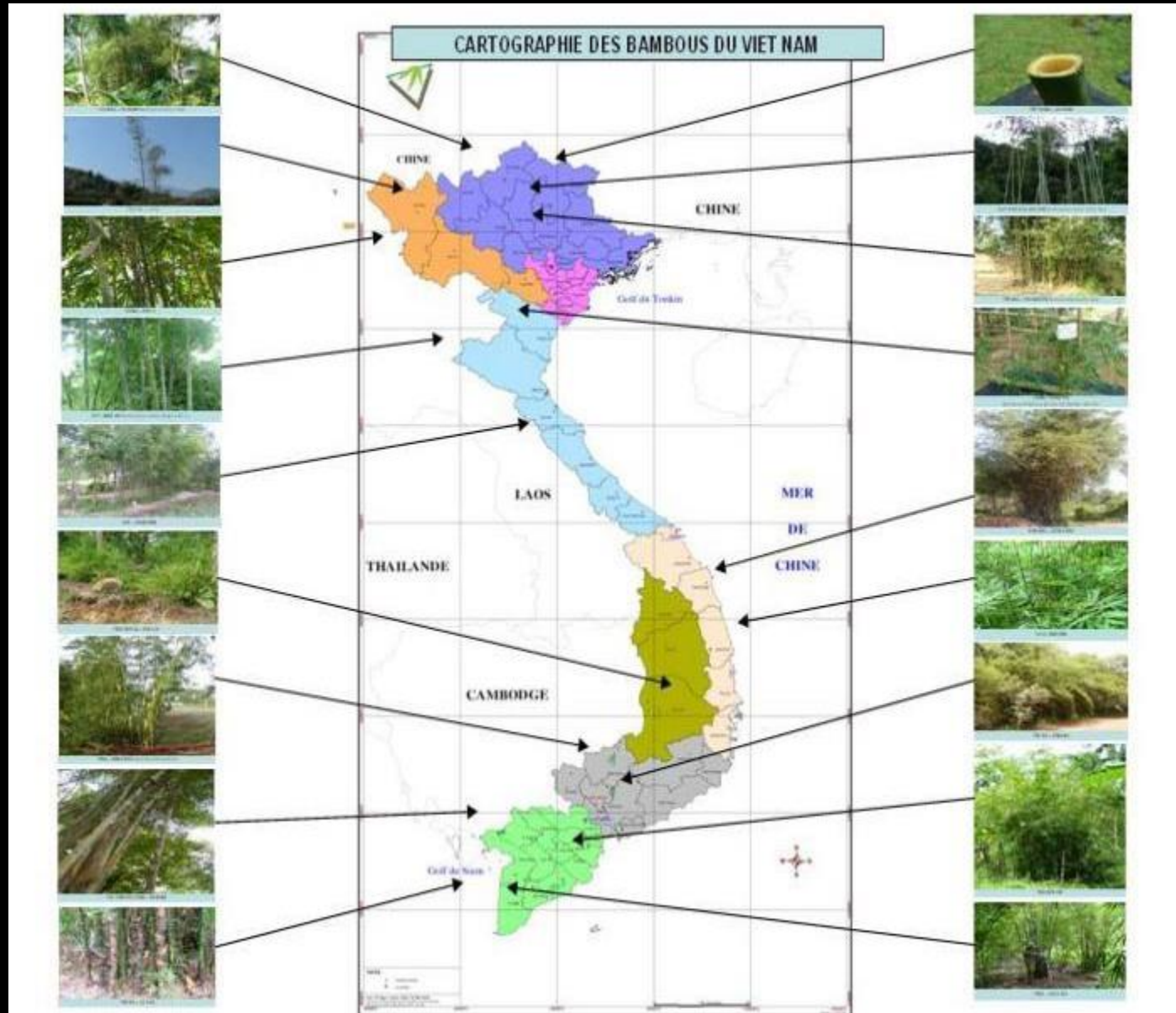


Scientific research for bamboo conservation

Bamboo collection



Prospecting for bamboos in Viet Nam (2003-2007:301 specimens collected)



Taxonomie du bambou

Bamboo taxonomy

Phân loại Tre



Collecte et travaux de terrain

Collections and field trips

Sưu tầm thực địa

Littérature
Literature
Tài liệu tham khảo



Specimens (types et non-types) dans les collections de référence

Specimens (types and non-types) in the reference collections

Thảo tập (mẫu chuẩn hay không) trong tư liệu sưu tập



- Group of data collectors and managers:**
- Vietnam: Completed field trips
 - Laos and Cambodia: Field trips to be carried out

- B - ---Botany collection & pictures**
- Indochinese Bamboo species' scientific names
 - Physiochemical and DNA analyses
 - Anatomical morphology of bamboo

- Collecting data on the field trips
- References
- Entering collected data

- Adjusting with taxonomists for taxonomy of typical attributes and equivalent characteristics for use in Xper2.
- Verifying the taxonomy results after adjustments.

Group of botanists and taxonomists

Group of IT experts

- Uploading the online taxonomy key
- Translating the instructions (on species, attributes, characteristics, picture notes) in the database into languages used in the program
- Verifying and assessing the database
- Retrieving in the HTML form

12 groups of descriptors



1. Rhizome



2. Chaume (culm)



3. Noeud (nodes)



4. Internodes



5. Culm sheath



6. Sheath blades



7. Sheath ligule



8. Culm auricles



9. Shoot



10. Branches

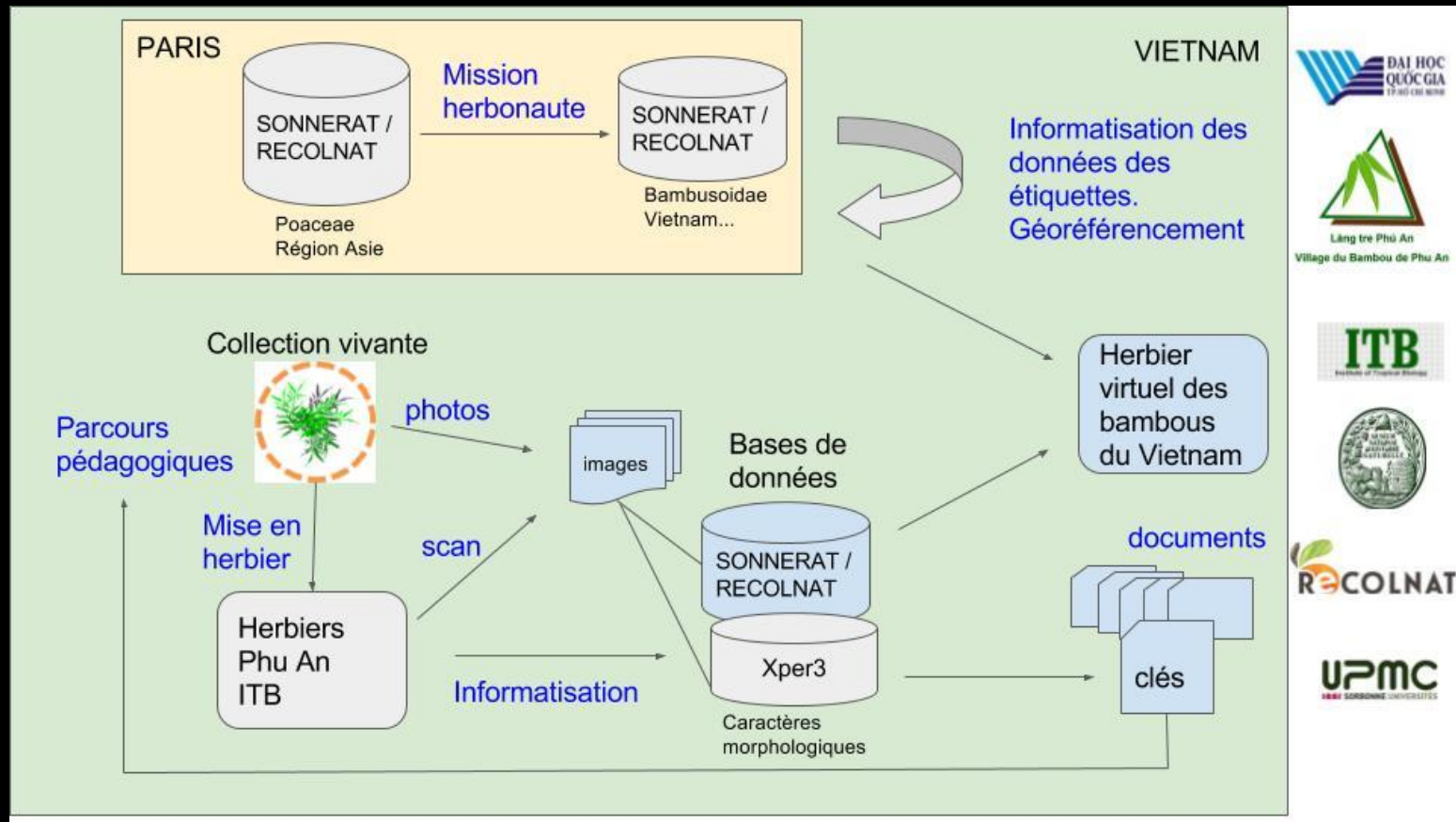


11. Leaves

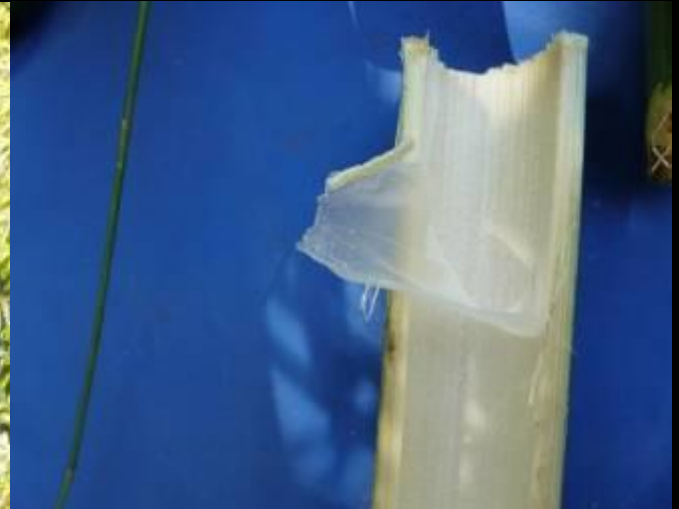


12. Flowers

Research project with SEP2D



MAY PO *Cephalostachyum*
XE KATAM- Champasak- LAOS



Melocalamus sp.



Vietnamosasa darlacensis



Genera

- 1 *Acidosasa* C.D.Chu & C.S.Chao
- 2 *Ampelocalamus* S.L.Chen, Wen & G.Y.Sheng
- 3 *Bambusa* Schreber
- 4 *Bonia* Balansa
- 5 *Cephalostachyum* Munro
- 6 *Chimonobambusa* Makino
- 7 *Dendrocalamus* Nees
- 8 *Fargesia* Franch.
- 9 *Gigantochloa* Kurz ex Munro
- 10 *Indosasa* McClure

Genera

- 11 *Kinabaluchloa* K.M.Wong
- 12 *Maclurochloa* K.M.Wong
- 13 *Melocalamus* Bentham
- 14 *Phyllostachys* Siebold & Zuccarini
- 15 *Pseudostachyum* Munro
- 16 *Pseudoxytenanthera* Soderstrom & Ellis
- 17 *Sasa* Makino & Shibata
- 18 *Schizostachyum* Nees
- 19 *Sinobambusa* Makino ex Nakai
- 20 *Thyrsostachys* Gamble
- 21 *Vietnamosasa* T.Q.Nguyen

Study of the role of bamboo in protecting the environment for sustainable development

- Environmentally friendly material from bamboo fiber
- Adaptation of bamboos in different areas
 - Bamboo in dry region
 - Bamboo in flooded areas: protect the bank of the river and fight against the storm
- Solution for people in flooded areas to adapt with climate change:
 - Floating house by bamboo for flooded area.
 - Bamboo piroques for flooded areas

Bamboos in dry region



Bamboo in flooded areas



Activities for sustainable development

- **Education for the children: green class with bamboo**
- **Formation the students of University**
- **Communication for people**

Formation and education Most important for futur



Traditional dance with bamboo



Utilisation des sols pour le dessin en sensibilisant les enfants à la protection de l'environnement

Using the soil for drawing to create a sense of protecting the environment for the children



**Les enfants du village apprennent à reconnaître
une vingtaine d'espèces précieuses à protéger**

**Children of the village learn to recognize twenty rare and
precious species to be protected**



Education for children :
« Savez- vous planter les bambous?
Do you know how to plant bamboos?»



Participation à la formation

Participation in training



Formation des masters sur les
ressources naturelles à l'Université
des Sciences de HCMV

Training masters of natural resources
at University of Sciences
Ho Chi Minh City

Stage de formation par l'Université
Paris VI pour l'utilisation d'un logiciel
d'identification des bambous

Workshop by l'University Paris VI for
utilisation of software to
identify bamboos



**Les étudiants découvrent la biodiversité des bambous
du Vietnam à Phu An**

Students discover biodiversity of Vietnamese bamboo at Phu An



Korean students in Phu An bamboo village



UTAS students in Phu An



UTAS students in Ro Koi



Maison flottante en bambou

Floating house by bamboo



Inauguration de la maison flottante en bambou

Inauguration of the floating house by bamboo



Bamboo basket for fishing on the sea



Bamboo piroque for the river



**News products from bamboo shoot:
please coming taste in our booth**



Communication in Bamboo Day in Phu An



Communication: Bamboo Day in Phu An bamboo village



After the Conference, I would like to offer this musical instrument for one Mexican organisme for using to teach the children.

For sustainable development

ROUTE OF BAMBOO



The “Route of Bamboo”,
real and virtual,
connecting the small bamboos
to the giant species,
connecting the dry ecological,
the sloping and seasonal flooded regions,
will bring together goodwill for growing bamboo
and constitute the heart of humanity.

The “Route of Bamboo” sends
the messages to the farmers,
selling their back to the sky
and their face to the land to feed people
and to adapt with climate change,
connecting communities living around
the bamboo with scientists
for the sustainable development
and the maintenance of healthy
living environment for the people.

Thank you for coming to sign for **the route of bamboo** at our booth



Le bambou, champion du développement durable
The bamboo, a champion of sustainable development
El bambú, un campeón del desarrollo sostenible



MERCI POUR VOTRE ATTENTION
THANK YOU FOR YOUR ATTENTION
GRACIAS POR SU ATENCIÓN

