

## WT55 – Management of ecosystems and biodiversity

### Session 1

#### The Chinese vision

- There is tension between economic development and sustaining biodiversity, with the current models of economic development. There is too much emphasis on the idea of growth to the detriment of the concept of development.
- The ecosystems have been unbalanced by the excessive use of chemical fertilisers and pesticides since the 1980s.
- The development of cities does not take local characteristics into account. Whether they are small cities or large cities.
- There is a generally good level of awareness in the central government regarding biodiversity problems. The problem is rather in intermediate levels. There are especially differences with local government that favor economic development and neglect biodiversity. The other problem is the public's lack of awareness. The urban elite and native peoples living a traditional lifestyle are conscious of the problems, but not the rest of the population.
- There is a loss of traditional practices in agriculture, notably methods of bioregulation. Techniques appear to be becoming streamlined. The same methods of analysing ecosystems are used, and this does not correspond to the diversity of the territory.
- Certain threats, such as deforestation, are visible and illegal, but other threats, such as pesticides, are invisible and legal.
- Certain western societies produce banned chemical substances in China that are banned in their countries of origin (paraquat). This is a very serious problem.
- There is sometimes collusion between scientists, agricultural development, and agrochemical businesses.
- There are contradictions between laws for biodiversity and other laws regulating economic activity.
- Ore mining and use of local resources cause great damage.
- There are zoning policies with zones where human activity – even research – is banned, intermediate zones.
- There are models of inter-regional cooperation, for example in the Yangtse-Pearl River basin. Downstream regions subsidize upstream regions.

- Raising public awareness is one of the priorities.
- Incorporate biodiversity issues in policies and daily behaviours as a whole, in addition to biodiversity policies. The executive power must have a correct concept of biodiversity.
- Record and assign value to ancient, proven practices, especially among native peoples, as well as to the conception and manners of traditional ecosystem management in different cultures. The government must take into account both the knowledge and the practices of native peoples.
- There is cooperation (with Sweden and Germany) for research on alternative methods in agriculture.
- Ban certain chemical substances in China.
- Help agricultural organisations to diversify. Draw their attention to the problem of chemical substances.
- Rehabilitate industrial and mining zones.
- Favour the notion of development, which is wider than the notion of growth.
- There will be no maintenance of biodiversity without maintenance of cultural diversity. And without biodiversity there would be no cultural diversity.

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### Session 2

#### The European vision

- European domestic biodiversity is most evident in Mediterranean agriculture. Europe is linked to the Middle East [wheat, barley, oats, olive trees, date palms, grape vines, fruit trees from Asia such as plum trees, or vegetables (beets)].
- Traditional rural communities have achieved diversity in domestic varieties of crops.
- Significant changes since the 1950s. Industrial agriculture expanded, replacing traditional systems with the US model of big plains. This was unsuccessful in mountainous regions.
- Farmers abandoned diversity for selected cash crops.
- The current varieties are not compatible with the environmental situation.
- A limited variety of crops is cultivated over large areas.
- Threats: 4 major issues: - contamination by GM crops, problems with plant copyright, a law which forbids small farmers to produce their own seeds and to trade them
- Threat: a global, unregulated market is threatening biodiversity by focusing on limited crops.
- Biodiversity in Europe: 1-3% of forests remain untouched by humans. In Europe, biodiversity is dependent on human activity. Since 1950, half of all humid regions and ecologically valuable agricultural land has been lost. Fish stocks are below biologically accepted levels, 800 plant species are endangered. Responsibility for biodiversity-related problems beyond Europe (greenhouse effect, deforestation in the Amazon due to Europe's soya bean industry)
- Causes: fragmenting natural habitat (highway construction), discarding traditional agricultural practices, introducing invasive species on a massive scale; agricultural and industrial pollution, demographic growth, urbanisation; climate change results in behavioural changes in Northern European species.
- Les politiques: - Des espaces « noyau » protégés de l'activité humaine. - La biodiversité est partout ailleurs liée aux activités humaines. Les politiques favorisent la cohabitation entre activité humaine et protection de la biodiversité. Notamment par le zonage et le développement d'études d'impact. - Axe central réseau Natura 2.000. combien une approche par territoire remarquable et protection d'espèces particulières. Deux objectifs: comment mettre en réseau et comparer différents modèles. L'union européenne joue un rôle important. - La biodiversité n'est pas seulement l'affaire des experts et des hommes politiques.

- Solutions : -Réaction d'agriculteurs qui reconsidèrent le rôle de la biodiversité dans leurs champs. Qualité et adaptation aux terroirs. Les paysans demandent la reconnaissance de droits collectifs, parfois lié à des territoires. Revendication liée au traité de la FAO sur les ressources génétiques. - le statut marchand n'est pas adapté à la gestion du vivant, - gestion diffuse et décentralisée. - intégrer la biodiversité dans les politiques agricoles. - intégrer la biodiversité dans l'aménagement du territoire, -Intégrer les savoirs populaires/paysans. -intégrer dans la culture de la population. -Inciter la diversité quand les conditions le permettent. Recombiner les cultures et l'élevage. La biodiversité sur la même parcelle. -certification participative pour réduire les coûts de l'agriculture biologique.

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### Session 3

#### Similarities

- There are still areas in China that are relatively untouched and “wild”, but these areas no longer exist in Europe. (Should they be recreated?)
- There is no specifically Chinese or specifically European way of managing biodiversity. In both societies, it raises the same questions and causes the same controversy. There are two main models: in situ vs. in vitro. Ecologist’s view vs. technician’s view?
- Is biodiversity a cultural issue ? Is diversity a cultural principle that can be applied to multiple domains (social diversity, mixed agrarian system, biodiversity, territorial diversity)?
- Can we / should we distinguish between domestic biodiversity problems and natural biodiversity problems? (problem of segmented ministries: agriculture/ forestry/ environment)
- The value of natural reserves is widely acknowledged. But to what extent are they useful and do they justify a lack of protective policies?
- Are natural areas that seek to bring together economic activity and biodiversity becoming the basis of new, generalized socio-economic practices? (example of the rice protection park)
- Is biodiversity (natural or domestic) a shared heritage or is it always the result of a social effort that should be recognized and remunerated? Who should be recognized and how (question of communities)? Can we have a systemic approach limited to nature? Shouldn’t the systemic approach include local communities?
- Biodiversity is the result of social choices. The state of biodiversity: what is the same, what is different?
- Should we refer to “conserving” biodiversity or “renewing” biodiversity?
- How are farmers represented when international treaties propose involving them in conservation / renewal efforts?
- Are there any participative models that bring together farmers and researchers or indigenous people and researchers? Do they provide an alternative to the “centralising” model?

- What is the role of the “market” when laws keep farmers from producing their own seed?
- The economic role of proximity with the land vs. an international, homogenising market. Relationship between biodiversity and the regulatory model of the national market.
- Can we / should we involve people who are not directly part of the domain, like the military?
- Is biodiversity always a social choice?

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### Session 4

#### How to enhance the dialogue between China and Europe ?

- Discuss minimum biodiversity requirements for maintaining balance in the ecosystem.
- Set up a multi-player, multi-disciplinary dialogue about: tradition/ modernity, epistemology, scientific and non-scientific knowledge.
- Network for exchanging experiences and sharing information: evolution of organic farming, evolution of genetically modified food (positive/negative), European and Chinese farmers exchanging their experiences, managing natural/artificial forests, responsible forestry. Community management of forest products (example: Italy), especially food products. “Territorial” approach, for example, river basin management.
- To promote visits to the different countries. Arrival of European participants in China. Visit of Chinese participants in Europe in order to pass resolutions after each forum. We will have more to share at the third forum.
- Create a link between the WT15 and WS13 workshops: changes in research as a result of privatisation (does privatisation limit creativity?)
- Link with the WT52 workshop on natural resources, especially on resource quality and watersheds.