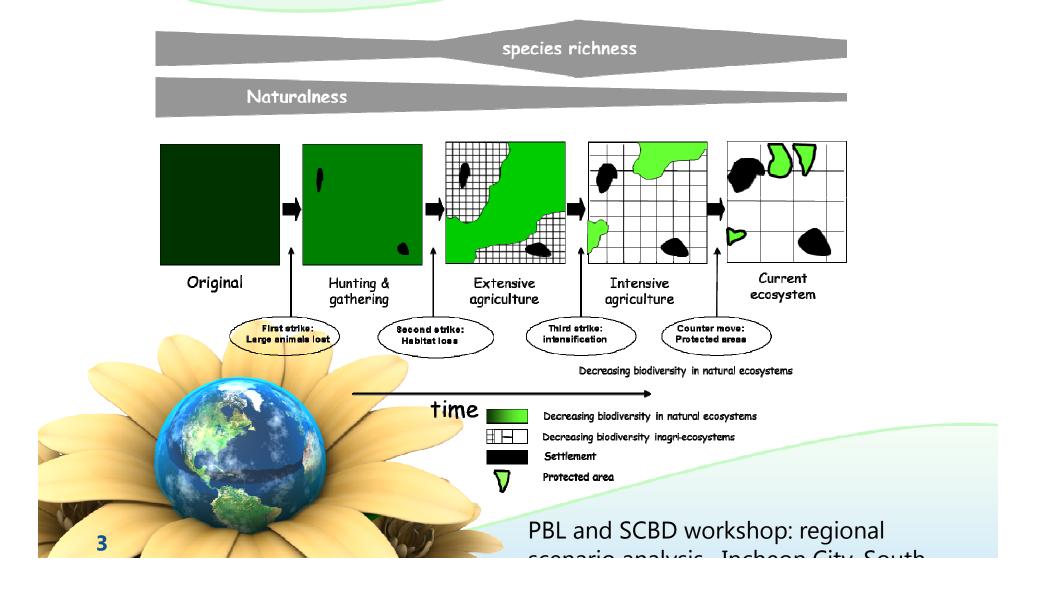


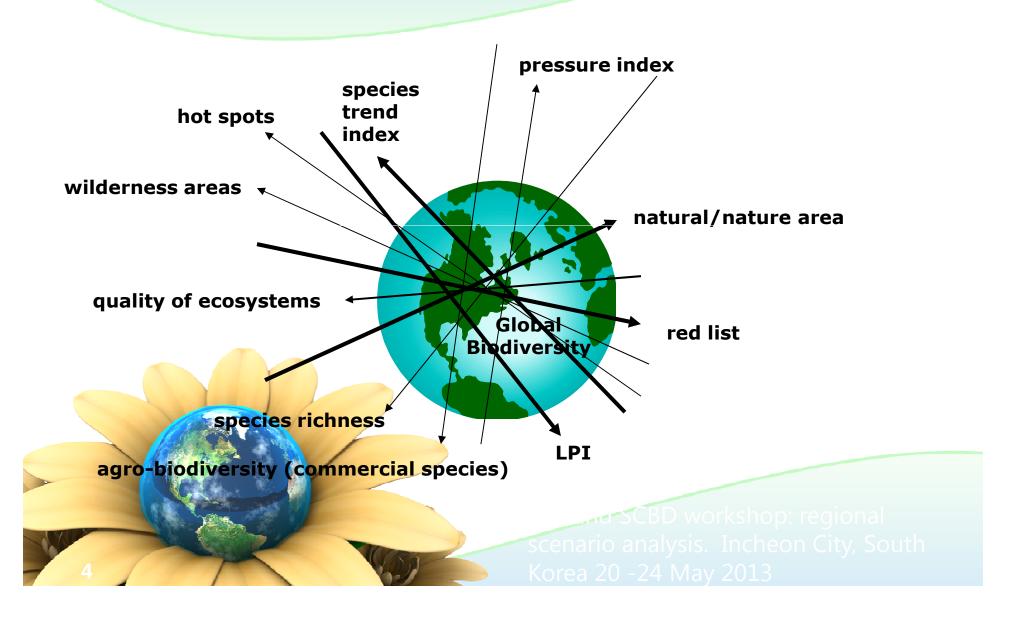
Summary

- 1 Ice-breaking
 - Biodiversity loss and indicators
 - Working session: pressures, drivers and indicators
 - Introduction to GLOBIO3 model terrestrial modelling
 - Land use scenario model
 - Evening assignment:
 Pressures and policy options

Species richness vs. naturalness



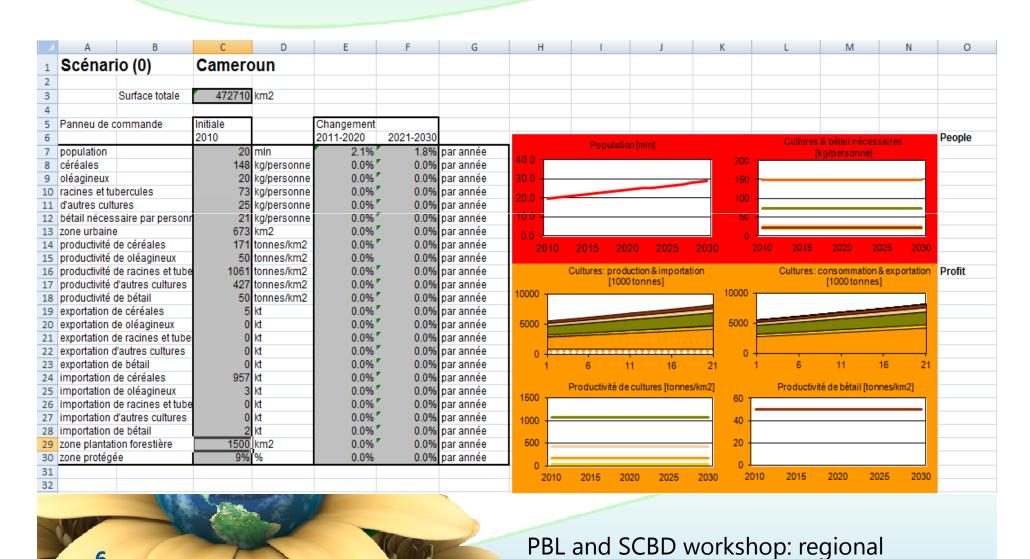
Well known biodiversity indicators



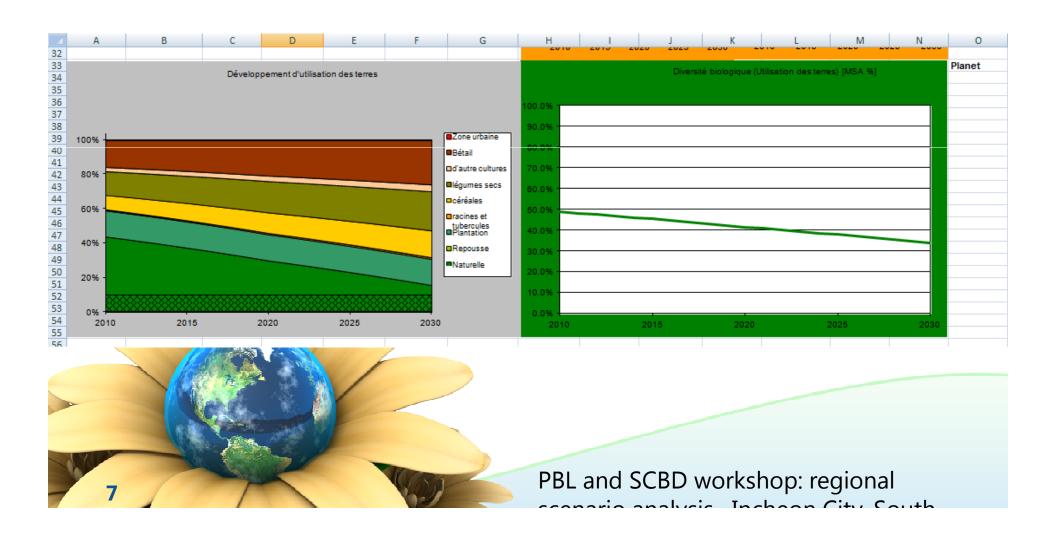
Information for scenario factors

| d | A | В | C | D | E | F | G | Н | J | K | L | М | N | 0 | Р | Q | |
|----|----------------------|---------------|-----------|-----------|---|-------------------|---------|-----------|--------------------|-------------|------------|-------------|----|----------|----------|---------|---|
| | Country: | Tanzania | | | | | | | | | | | | | | | |
| 2 | total area: | 88580 1000 ha | | | | | 2010 | | ltem | Yalue | Unit | km2 | | | | | |
| 3 | population: | 44.841 | mln | | | Crop 1= cereals | 5048500 | ha | Country area | 94730 | 1000 Ha | 947300 | | | | | |
| 4 | | | | | | | 6986380 | ton | Agricultural area | 35025 | 1000 Ha | 350250 | | | | | |
| 5 | Control panel | | Initial | | | productivity | 138 | ton/km2 | Forest area | 34436,5 | 1000 Ha | 344365 | | | | | |
| 6 | | | 2010 | | | | 156 | kg/person | | | | | | | | | |
| 7 | population | | 44,8 | mln | | domestic cons | 154 | kg/person | | | | | | | | | |
| 8 | cereals | | 154 | kg/persor | | export | 155 | kton | population 2010 | 44.841 | million | | | | | | |
| 9 | pulses | | 23 | kg/persor | | import | 921 | kton | pa (terrestrial) | 260808,29 | km2 | 26080829,39 | ha | | | | |
| 10 | oilcrops | | 29 | kg/persor | | | | | pa% | 27,5 | | | | | | | |
| 11 | Other crops | | 22 | kg/persor | | Crop 2= pulses | 1773000 | ha | | | | | | | | | |
| 12 | livestock needed p | er person | 18,25 | kg/persor | | | 1272500 | ton | | av2006-2009 | 2010 | | | | | | |
| 13 | urban area | | 350 | km2 | | productivity | 72 | ton/km2 | Total (2006-2009) | 94730000 | | | | | | | T |
| 14 | productivity cereals | 5 | 138 | ton/km2 | | | 28 | kg/person | Arable (2006-2009) | 9650000 | | 1 | | | | | t |
| 15 | productivity pulses | | 72 | ton/km2 | | domestic consumpt | 23 | kg/person | Permanent crops | 1375000 | | ha | | | | | Ť |
| 16 | productivity oilcrop | os | 21 | ton/km2 | | export | 84 | kton | Permanent meadow | 24000000 | | ha | | | | | |
| 17 | productivity other o | rops | 77 | ton/km2 | | import | 9 | kton | | | | | | | | | |
| 18 | productivity livesto | ock | 50 | ton/km2 | | | | | Forest area | 34436500 | | | | | | | |
| 19 | export of cereals | | 155 | kton | | Crop 3= oilcrop≤ | 1577400 | ha | Other land | 19118500 | | | | | | | |
| 20 | export of pulses | | 84 | kton | | | 332934 | ton | Inland water | 6150000 | | | | | | | |
| 21 | export of oilcrops | | 67 | kton | | productivity | 21 | ton/km2 | Total check | 94730000 | | ha | | | | | |
| 22 | export of crop other | er e | 0 | kton | | | 7 | kgłperson | | | | | | | | | |
| 23 | export of livestock | | 0 | kton | | domestic consumpt | 29 | kg/person | | | av2006-200 | 2010 | | %av | 2010% | | |
| 24 | import of cereals | | 921 | kton | | export | 67 | kton | Arable | cereals | 4637736 | 5048500 | ha | 0,480594 | 0,523161 | | Ť |
| 25 | import of pulses | | 9 | kton | | import | 22 | kton | | pulses | 1456396 | 1773000 | ha | 0,150922 | 0,183731 | | Ť |
| 26 | import of oilcrops | | 22 | kton | | | | | | oilcrops | 2051769,8 | 1577400 | ha | 0,212619 | 0,163461 | | |
| 27 | import of other cro | ps | 0 | kton | | Other Crops | | ha | | other crops | 1504098 | 1251100 | ha | 0,155865 | 0,129648 | | |
| 28 | import of livestock | | 2 | kton | | | | ton | | total | 9650000 | 9650000 | | 1 | 1 | | |
| 29 | plantation area | | 100 | km2 | | productivity | 77 | ton/km2 | | | | | | | | | T |
| 30 | protected area" | | 27,53 | % | | | | kg/person | | | | | | | | | |
| 31 | | | | | | domestic consumpt | 22 | kg/person | | | | | | | | | T |
| 32 | | | | | | export | 0 | kton | | | | | | | | | T |
| 33 | | | | | | import | 0 | kton | | | | | | | | | |
| 34 | *from VDPA natio | onal statisti | ios table | | | | | | | | | | | | | | |
| 35 | | | | | | Livestock | | ha | | | | | | | | | |
| 36 | | | | | | | | ton | | | | | | | | al crop | Ι |

Input data and influence on people and profit



... and in pictures



Observations

- Mean Species Abundance (MSA) for an ecosystem(s): base year for the historical data and future projections (land use map/physical plan)
- ✓ Determine the right pressures and drivers to biodiversity loss is a prerequisite for developing good policy option(s).
- ✓ With limited primary data collection/direct measurement, models could be a good substitute in the process of formulating policy options.

