Agroecologia - dalla monocoltura alla diversità: a che punto siamo?

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www.maninterra.it

Cooloqui di Dobbiaco – 26-29 Settembre 2024

The first green revolution(1950-1970)
(Messico, Philippine, India)
(Rice IR8, Corn, Wheat)

- High productivity with high external inputs

BUT AT THE SAME TIME:

- Ecosystem problems (biodiversity loss and oversimplification of landscape, contamination of water and soil, lower resilience to climate change)
- Diet problems (meat+carbohydrates)/(nuts, fruits and vegetable)
- Destructuring of local communities/economies (oligopoly in the supply and the food chain)
- Loss of social role of farmers (trapped in a treadmill economy with lower and lower profit)

Tuvalu, Kiribati, Panama, Miami

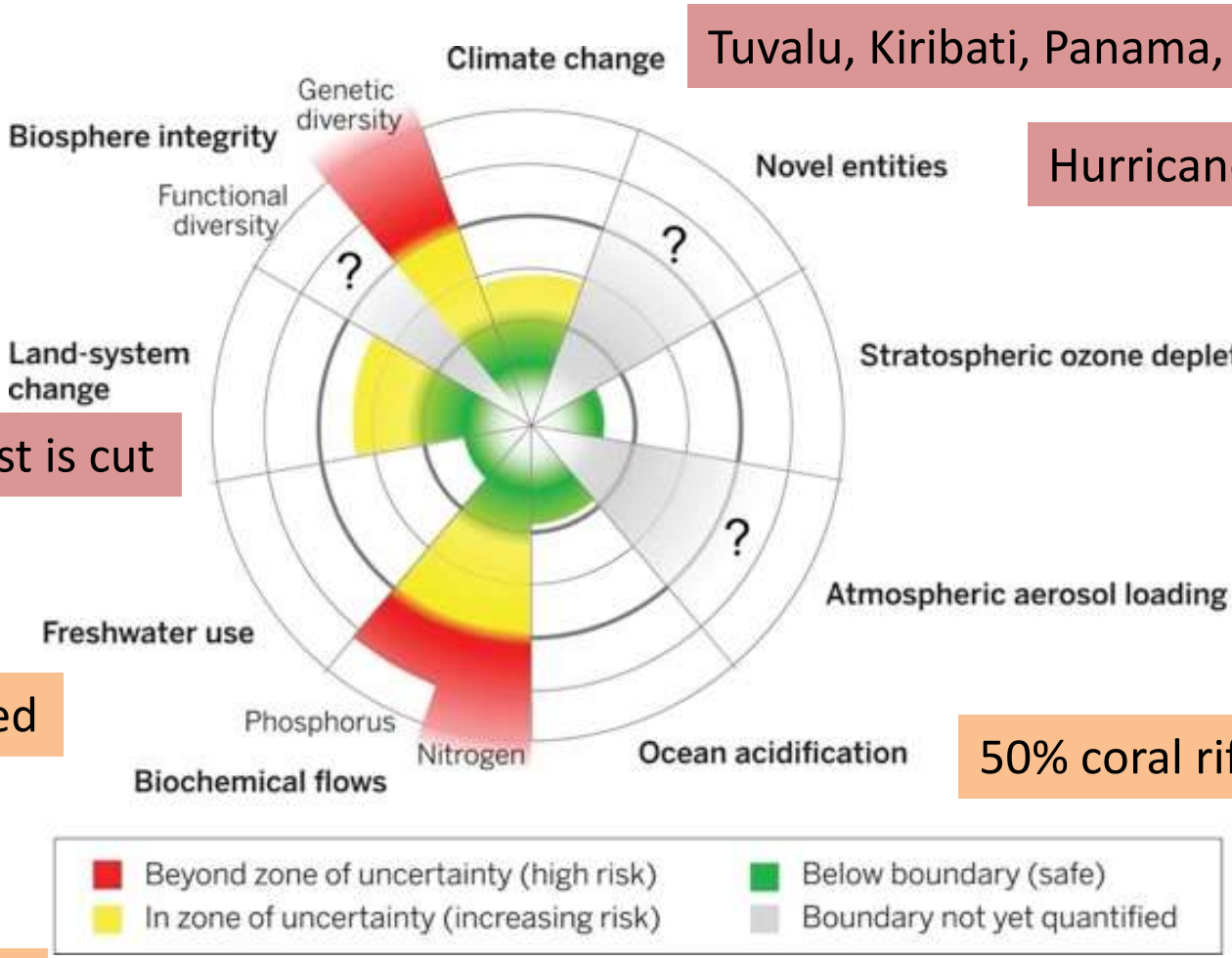
Hurricane Irma and Maria

98% of Haiti forest is cut

Peak of P is passed

50% coral riff is dead

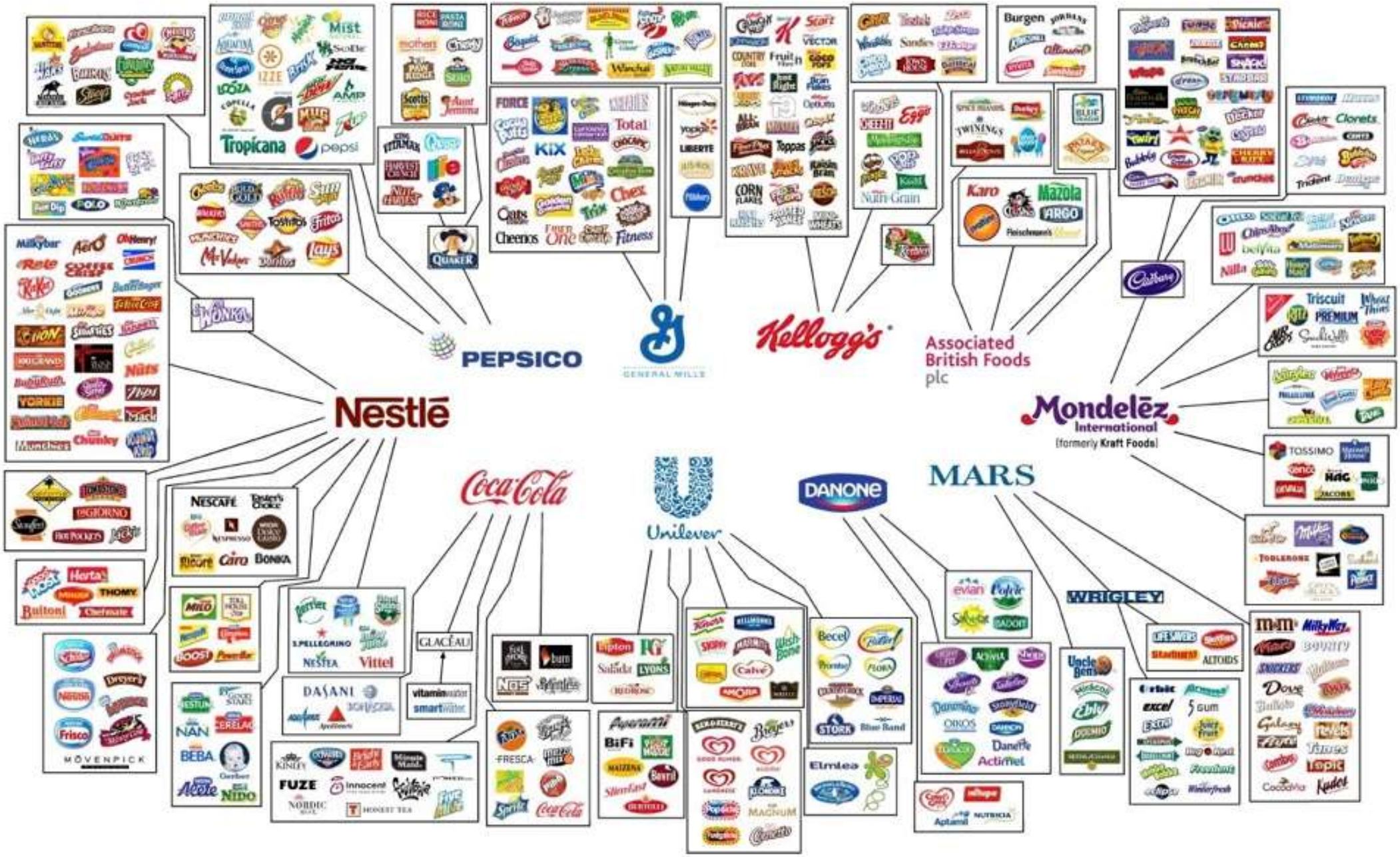
Human N > Earth N



Planetary boundaries (Steffen et al. 2015)

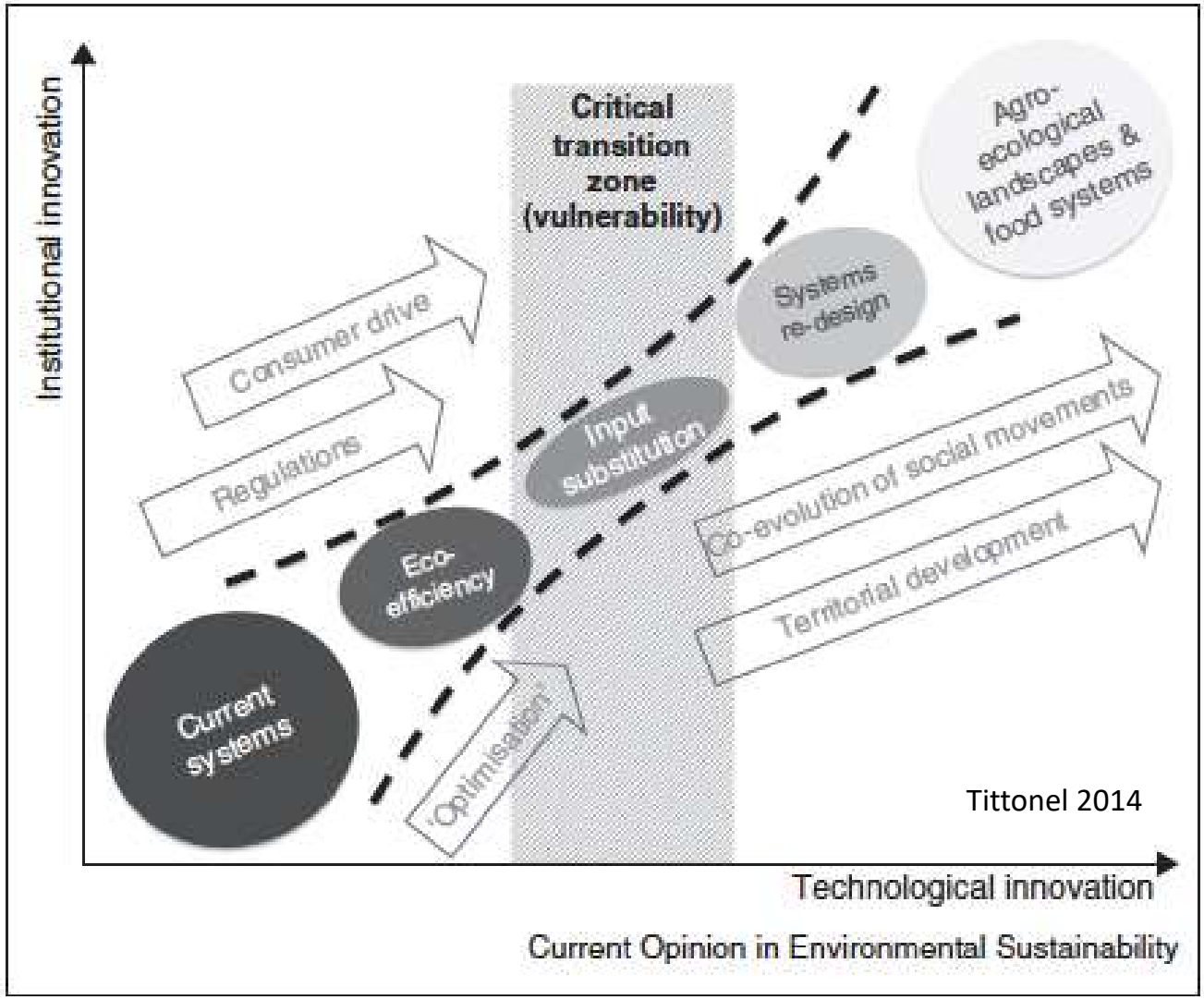
Do we have enough resources on the Planet to push a second green revolution as promoted by transnational companies under the name “sustainable intensification”?

The current food system is not socially sustainable



Profit comes in the hands of few and often farmers are only “work

Agroecological transition – ecology of the food system



Tittonel 2014

Agroecology as a science: intercropping cereals and legumes to increase efficiency and reduce fossil-based inputs

Renewable Agriculture and Food Systems: 23(1); 3–12 doi:10.1017/S1742170507002025

Grain legume–cereal intercropping: The practical application of diversity, competition and facilitation in arable and organic cropping systems

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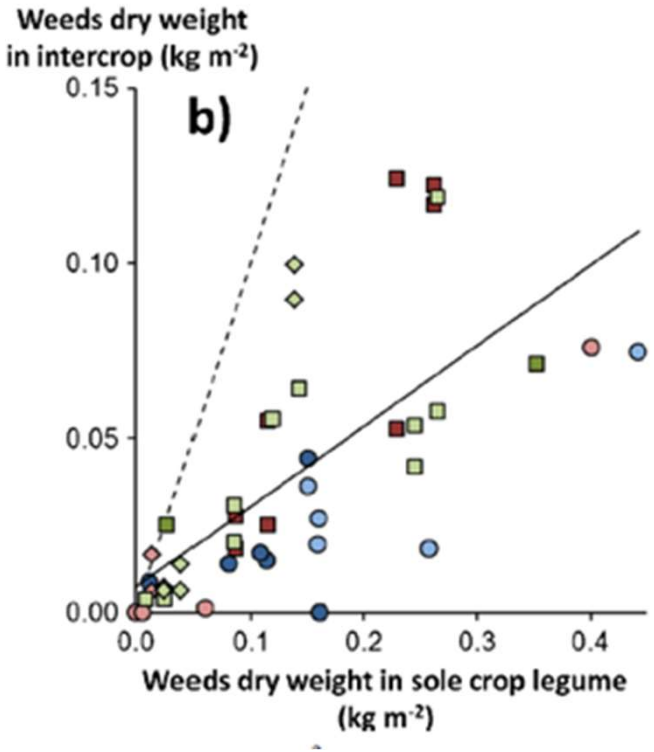
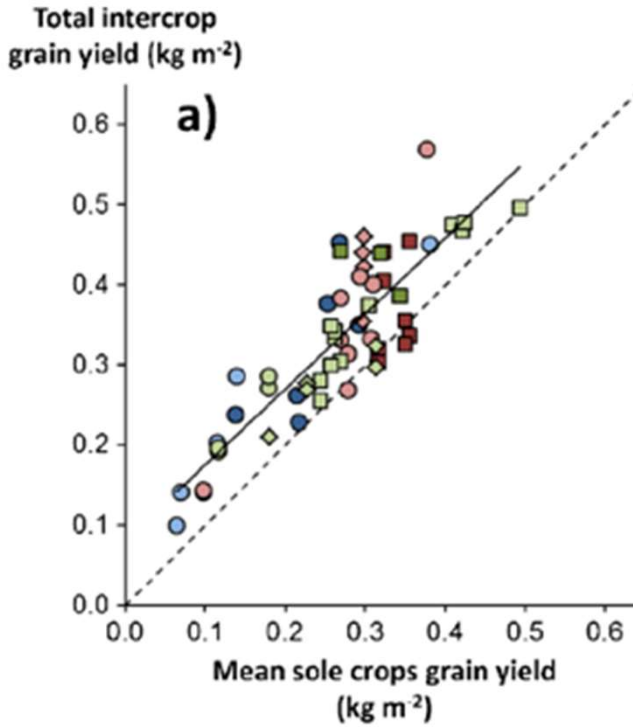
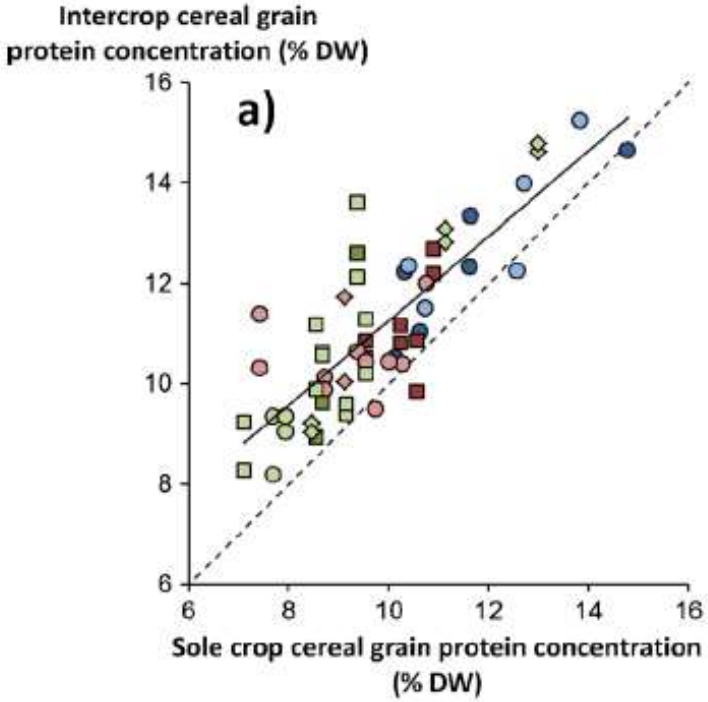
Complementarity in grain legume-cereal intercropping enhances crop performance (N and organic matter)



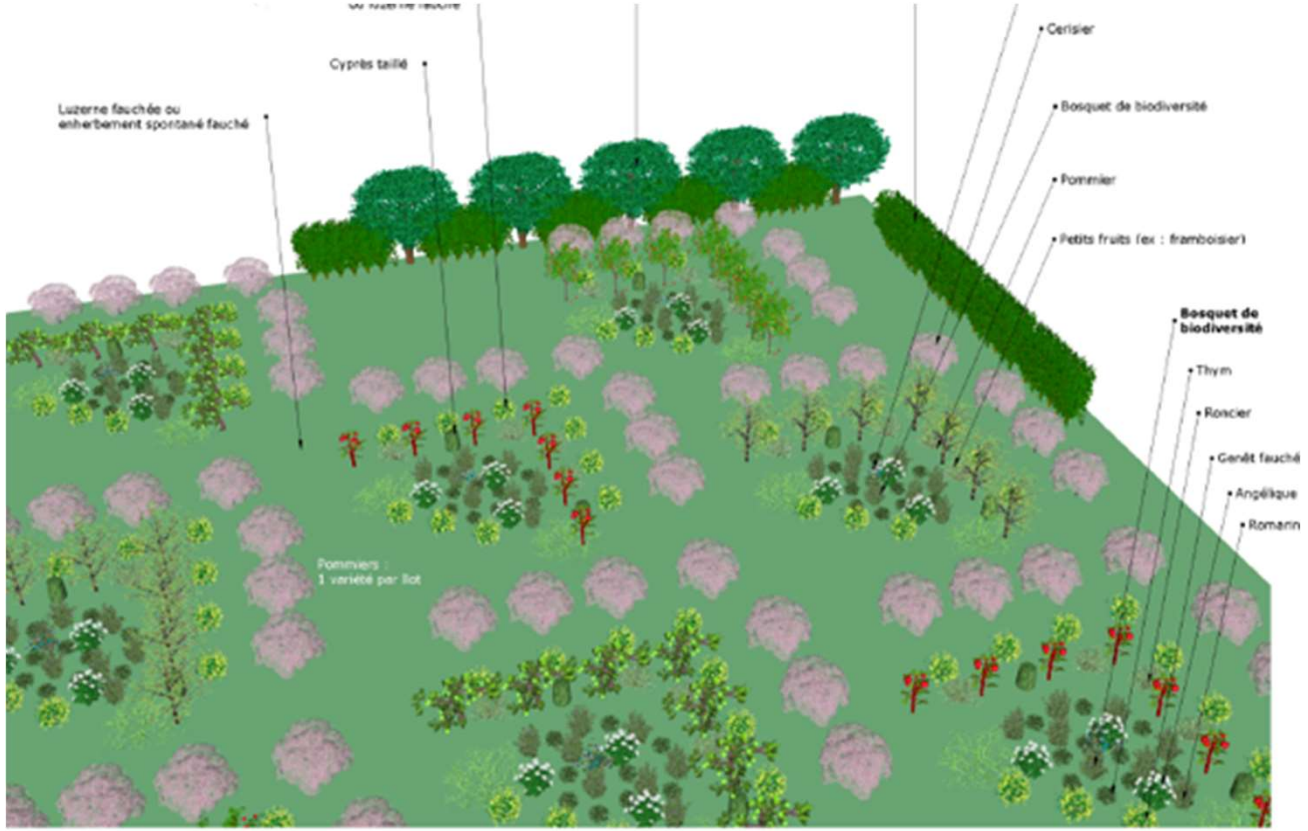




Bedoussac et al. 2015. Agron. Sustain. Dev. 35, 911-935.

Adding functional biodiversity within a monocolture setti

Design of a new fruit orchard with stakeholders (Valence, Francia)



API-tree: participatory design of new orchards (Financed by C-IPM, EU FP7)

Potential uses of added biodiversity in South T

Guida tecnica
2018 | No. 1126

Agrobiodiversità funzionale

Strisce fiorite perenni – uno strumento per facilitare il controllo dei parassiti nei meleti

FiBL

LAIMBURG

tivatori in merito alle specie di piante da fiore, agli antagonisti naturali e alle interazioni nell'ecosistema agricolo.

Misure complementari per promuovere gli organismi utili

L'efficacia delle strisce fiorite aumenta con la presenza di elementi naturali nel territorio circostante (siepi o zone coltivate in modo estensivo, ecc.). Infatti un frutteto progettato con una diversità di piante accuratamente selezionate e posto in prossimità di elementi naturali, permette di ottenere ottimi risultati grazie a una maggiore quantità di insetti utili e a una minore quantità di parassiti.