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Abstract

The science of sustainability in environmental education: managing the risks.

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Risk probability is the determination of the likelihood of a risk occurring. (high or low). This likelihood can be based on historical project information. Risks in sustainable agriculture include, among many others: socioeconomic risks, financial risks, climatic risks, agricultural risks. Climate risk is the potential for climate change to create adverse consequences for human or ecological systems. This includes impacts on lives, livelihoods, health and wellbeing, economic, social and cultural assets and investments, infrastructure, services provision, ecosystems and species. Agricultural risk affects production such as changes in the weather and the incidence of pests and diseases. Equipment breakdown can be a risk, as can market price fluctuations. Borrowing money can also be risky with sudden changes in interest rates. Risk also occurs as a result of changes in government policies.

In Ecology, sustainability is the capacity to endure; it is how biological systems remain diverse and productive indefinitely. Sustainable agricultural development can be described as a development which does not compromise the capacity of coming generations to develop themselves following agroecological principles. Indeed, a cultivated area is considered as an ecosystem in which inputs and outputs are balanced. All living organisms inside the system are taken into account, namely the crop (oil palm, rubber, coffee), its enemies (fungi, bacteria, insects, herbivores). The farmer's choices and practices are also of paramount importance.

On September 25th 2015 in New York, the United Nations adopted a set of 17 Sustainable Development Goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years. For the goals to be reached, everyone needs to do their part: governments, the private sector, civil society and people.

These 17 SDGS are now governing immediate action for improving the science of sustainability in environmental education.