Recovery of Agriculture and Biodiversity for the protection of the Climate

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Over the past three decades there has been much talked about, at all levels, the problem of climate change, and the extent to which it is due to natural and/or anthropogenic factors.

Beyond this, however, it is an important question and that is could answer even assuming a competition to both natural and artificial factors, is to keep in mind that the climate of our Planet, even in historical times, it has undergone many significant and sometimes sudden changes, even when it was not possible to attribute to them an important competition of human activities.

However a new fact with respect to the past centuries, and very important, is that the change currently underway on Humanity could have a much greater impact than in the past. For example, when the oceans will increase in level, will not be the most affected by this few million people living in small or medium-sized coastal towns, but billions, and their migration towards more internal areas of the continents would appear as an exodus unprecedented in history of Humanity. Another example, is that changes in climate are changing not only the agricultural productivity in many regions of the Planet, but also the nutritional value of some cultivated species: in recent times has been highlighted a significant fall in nutritional power of rice cultived in the Far East, which could result in a serious nutritional deficit to two billion people.

Among the measures that will have a preventive double effect on those described above, the recovery of biodiversity of plant species (that would protect at the same time, too many animal species from extinction) and the re-launch and recovery of agriculture, especially a "*sustainable agriculture*".

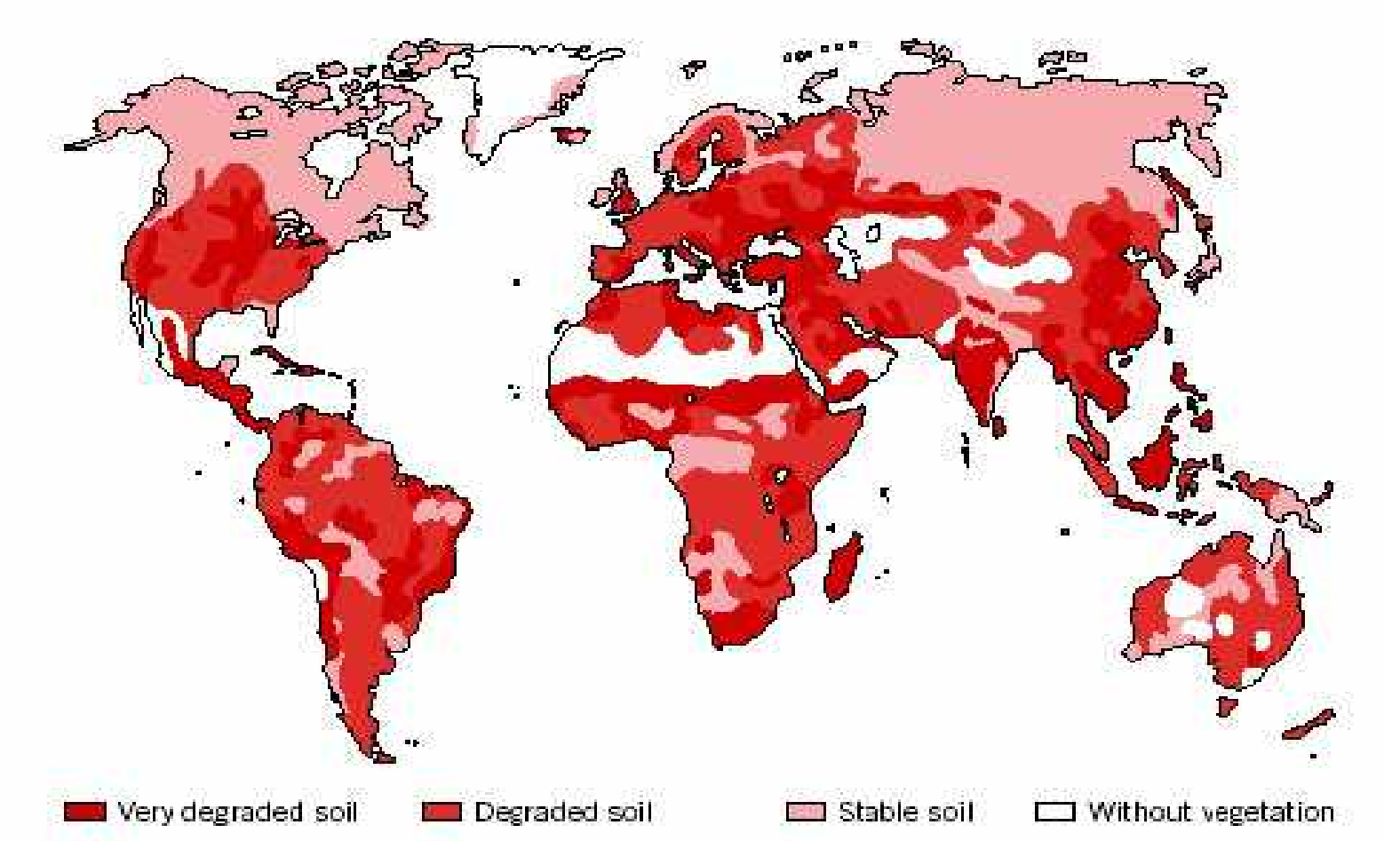
In this sense we have, for example, in the world today large areas desertified or whose fertility is drastically decreased. As is well known, the different plant cover of the soil also affects significantly the amount of solar radiation reflected and/or absorbed. The presence of a plant cover also prevents soil erosion and adjusts the evaporation of water from the soil. Specific plant species can facilitate the process of elimination/immobilization of to natural or artificial toxic contaminants restoring the balance altered. Also, and not least, is to investigate the effect it can have some plant species more than others on the electric charges of the atmosphere, which could derive action about form or less of precipitation.

The restoration and upgrading of many agricultural desertified or abandoned areas would give a significant positive contribution about what is expressed above, but also would prevent the adverse effects on human communities resulting from a decrease in food availability caused by climatic changes, both contrasting phenomena that would make anyway hard to stay human, such as changes in the microclimate, floods, landslides, decreased availability or contamination of water resources.

Complementary and essential in order to above, is proper management of water resources, both regulating the superficial waters (rivers, lakes, etc.), either by improving their use, both by preventing contamination.

In this sense, at present, is developing a omportant project to restore the environment and agriculture in the Ecuadorian province of Bolívar (not far from the volcano Chimborazo), together with the State University of Bolívar, from which it is believed will return results relevant to verification of the above.

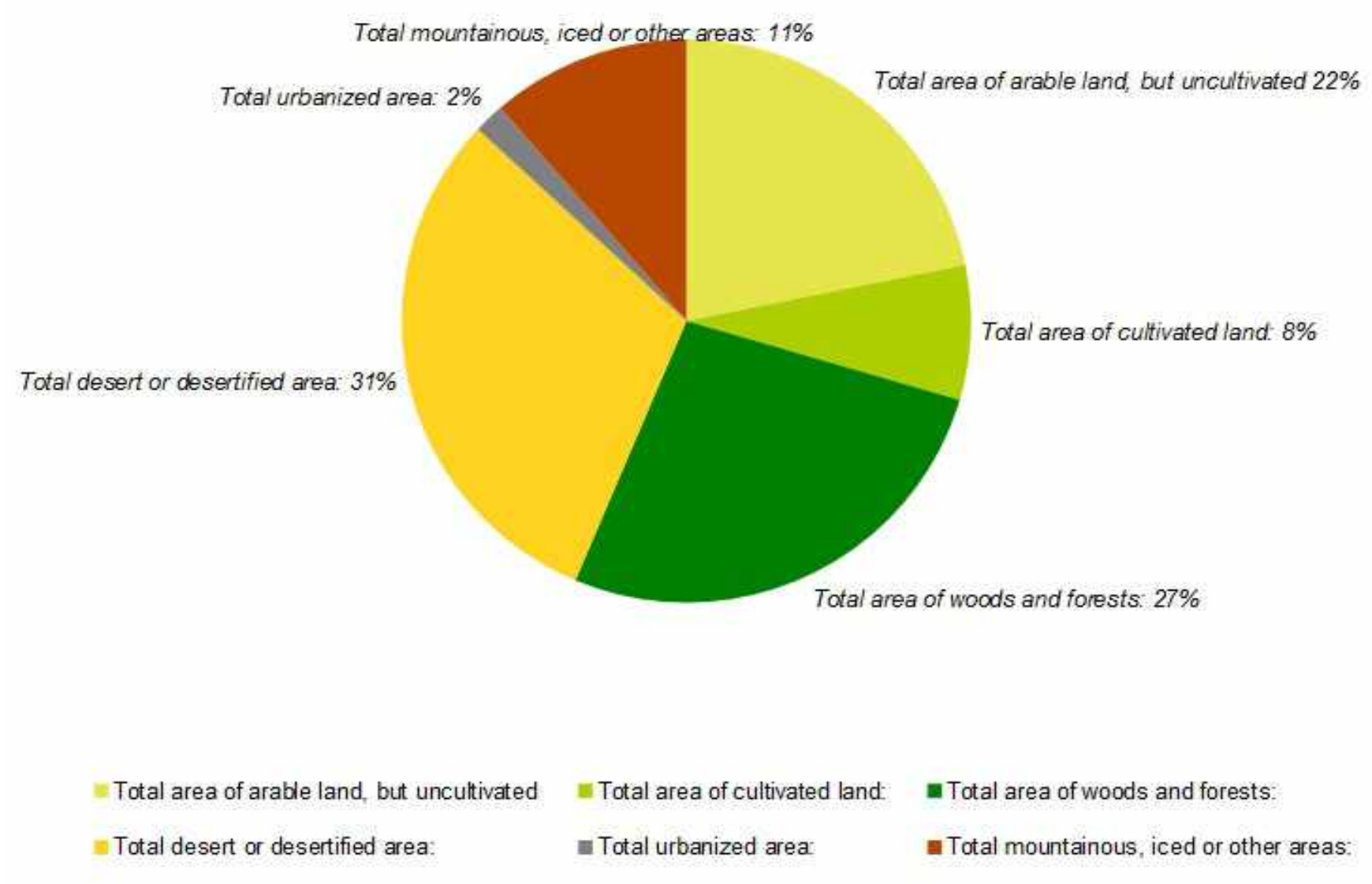
Degraded Soil in the World



USE OF SOIL IN THE WORLD

Total area of the land:	**$14{,}9\times10^9$ ha**
Total area of land suitable for cultivation:	$4{,}4\times10^9$ ha
Total area of cultivated land:	$0{,}7\div1{,}6\times10^9$ ha
Total area of arable land, but uncultivated:	$2{,}8\div3{,}7\times10^9$ ha
Total area of woods and forests:	4×10^9 ha
Total desert or desertified area:	$3{,}9\div5{,}2\times10^9$ ha
Total urbanized area:	$0{,}26\times10^9$ ha
Total mountainous, iced or other areas:	$1{,}69\times10^9$ ha

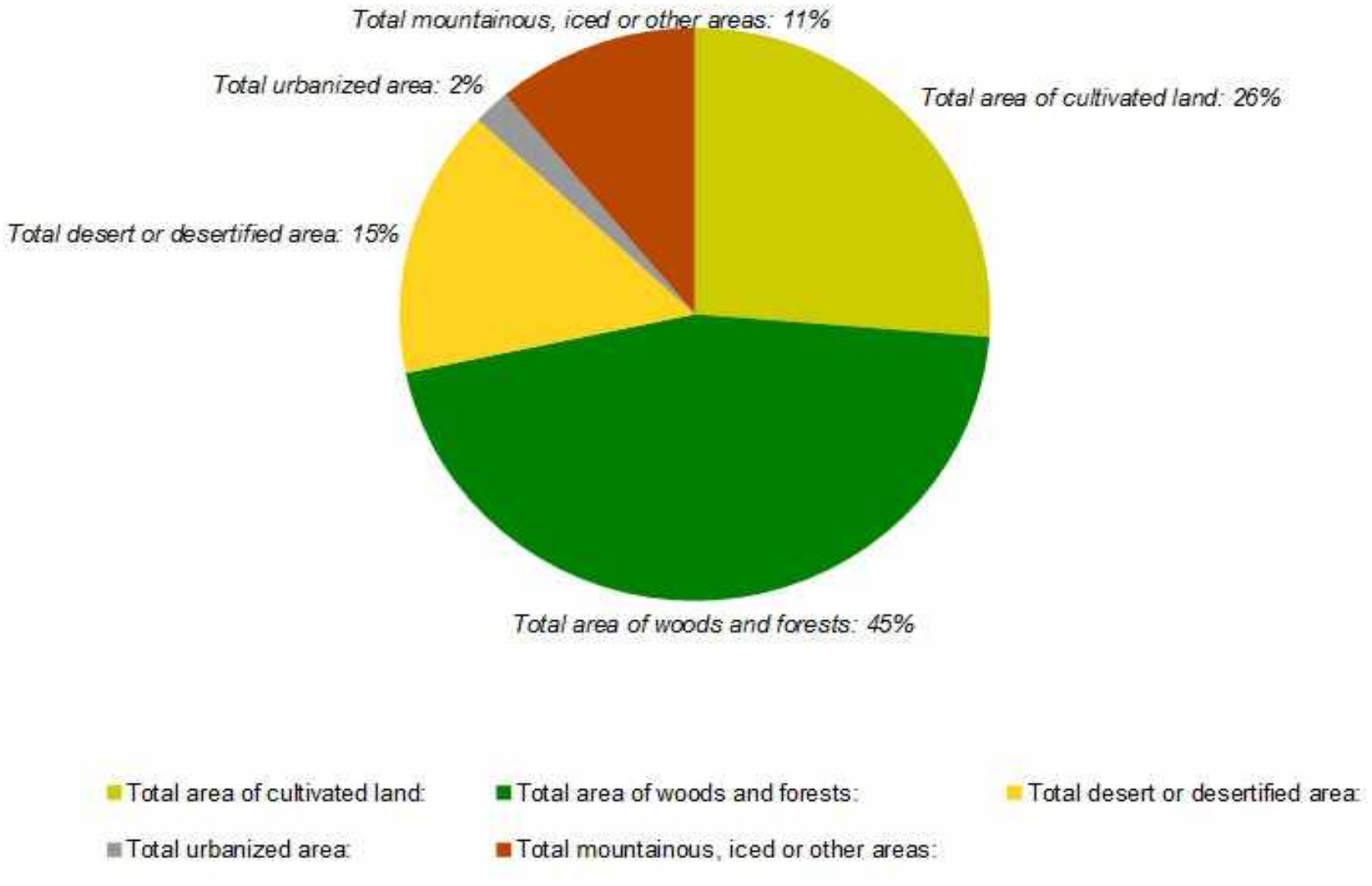
Use of the soil in the World
(Approximate)



Possible expansion of cultivated and Wood/Forest land

	Presently	Looking to the future
Share of cultivated land:	8 %	26 %
Share of wood and forest land:	27 %	45 %
Share desert areas:	31 %	15 %
Share urbanized areas:	2 %	2 %
Share mountainous, iced or other areas:	11 %	11 %

Use of the soil in the World
after a systematic recovery plan
(hypotheses)



City of Guaranda and Chimborazo Volcan

(Ecuador)



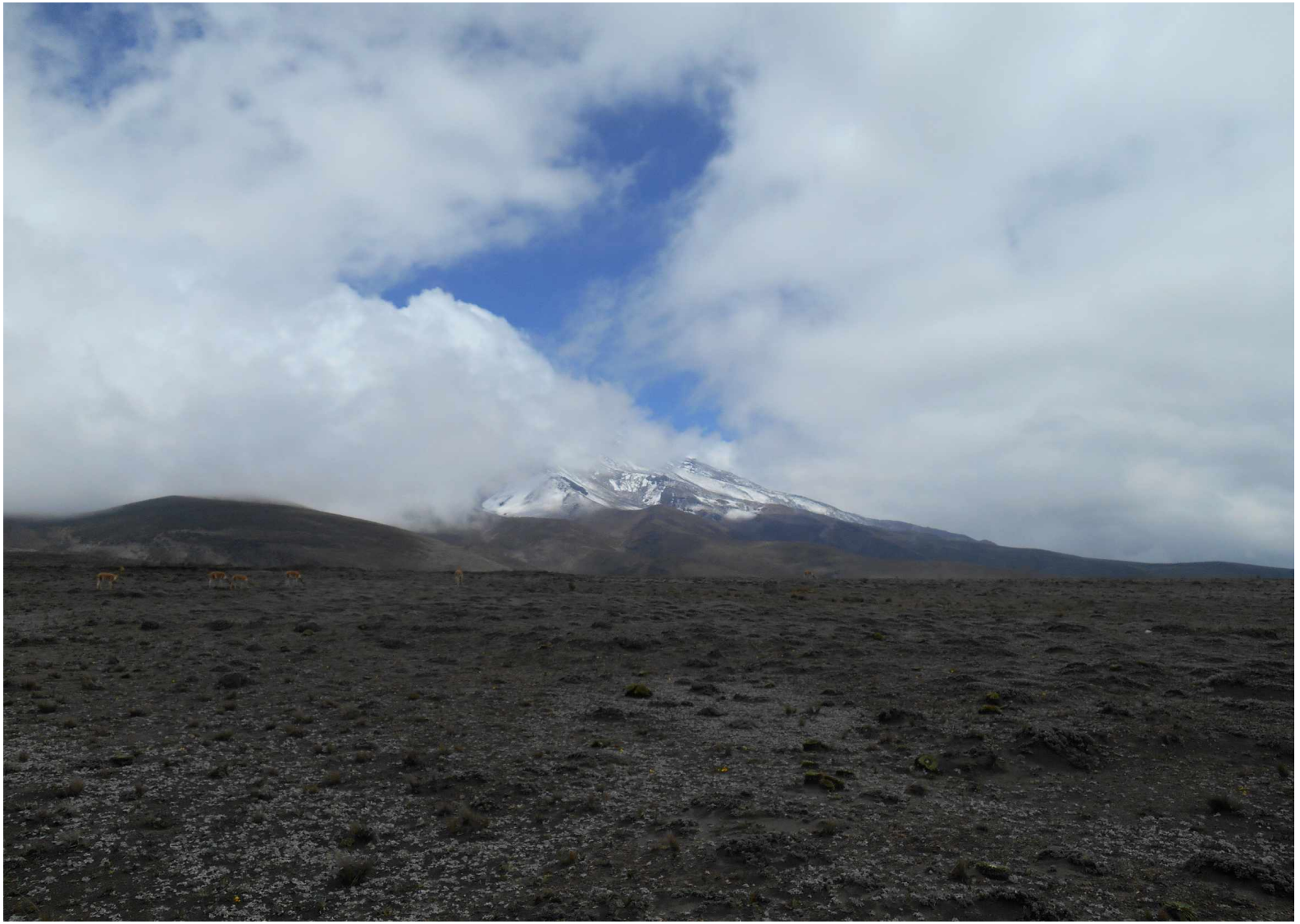
Chimborazo Volcan

(Ecuador)



The Paramo near Chimborazo Volcan

(Ecuador)



Cultivated lands near Guaranda



Desert in Dubai



Result of Vallerani's methodology in Burkina-Faso desertic area



Uncultivated lands in Bulgaria

