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GLOBALIZATION: A PERSPECTIVE OF PHYSICAL GEOGRAPHY

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ABSTRACT: While globalisation is generally limited to economics and social science, the concept is closely related to physical and environmental practices and is illustrated by physical geography. Physical geography has always tried to explain and understand the many subsystems of the world and their connections to human activity at a fundamental level. The global export of Western science, including Physical geography, that supported the exploitation of colonial resources and laid the groundwork for the worldwide conservation movement and environmental relations criticism, such as Political Ecology, can historically be seen. Globalization can be seen. Today, globalisation and increasing availability of scientific knowledge are evident in the booming efficiency and organisation of science. It also works on developing current scientific agendas based on broader environmental and environmental issues, particularly in emerging Earth System Science and sustainable science. These global agendas are not simply shared but are often generated by the public, policymakers, and business interests, presenting traditional disciplines and traditional disciplinary methods such as physical geography with opportunities and challenges.

KEYWORDS: conservation, Earth System Science, globalization, Physical Geography, Political Ecology, Sustainability Science

INTRODUCTION:

The study of the processes that form Earth's surface, of the plants and animals inhabiting it, and its spatial patterns is a physical geography. Physical geographers, self-identified in the mid-1800s, emphasise the identification and classification of climates, landscapes and biomes. In the 1950s, physical geography was diminished by a poor dose of environmental determinism. In the late 1950s and early 1960s, physical geography and human geography were radically quantified [1][2]. In the 1970s, this led to the identification of cinq major divisions in the physical geography: geomorphology, climatology, biogeography, soil science and quaternary environmental change, which led to a time of intense disciplinary specialisation.

Globalization is a concept that most people, scientists and economists have spoken about. In Figure 1 shown what is globalization. Globalization includes ways in which all the people and society in the world, whether through trade, labour and migration, capital flows or technology transfers, are increasingly linked. For some, the mechanism is characterised by growing distinctions and extremes, because some of them "is included" and some are "excluded" by the phenomenon. In this paper, the globalisation of collapsing financial and social structures around the world is cast into a far more negative light, linked to interconnectedness and thus collective vulnerability.

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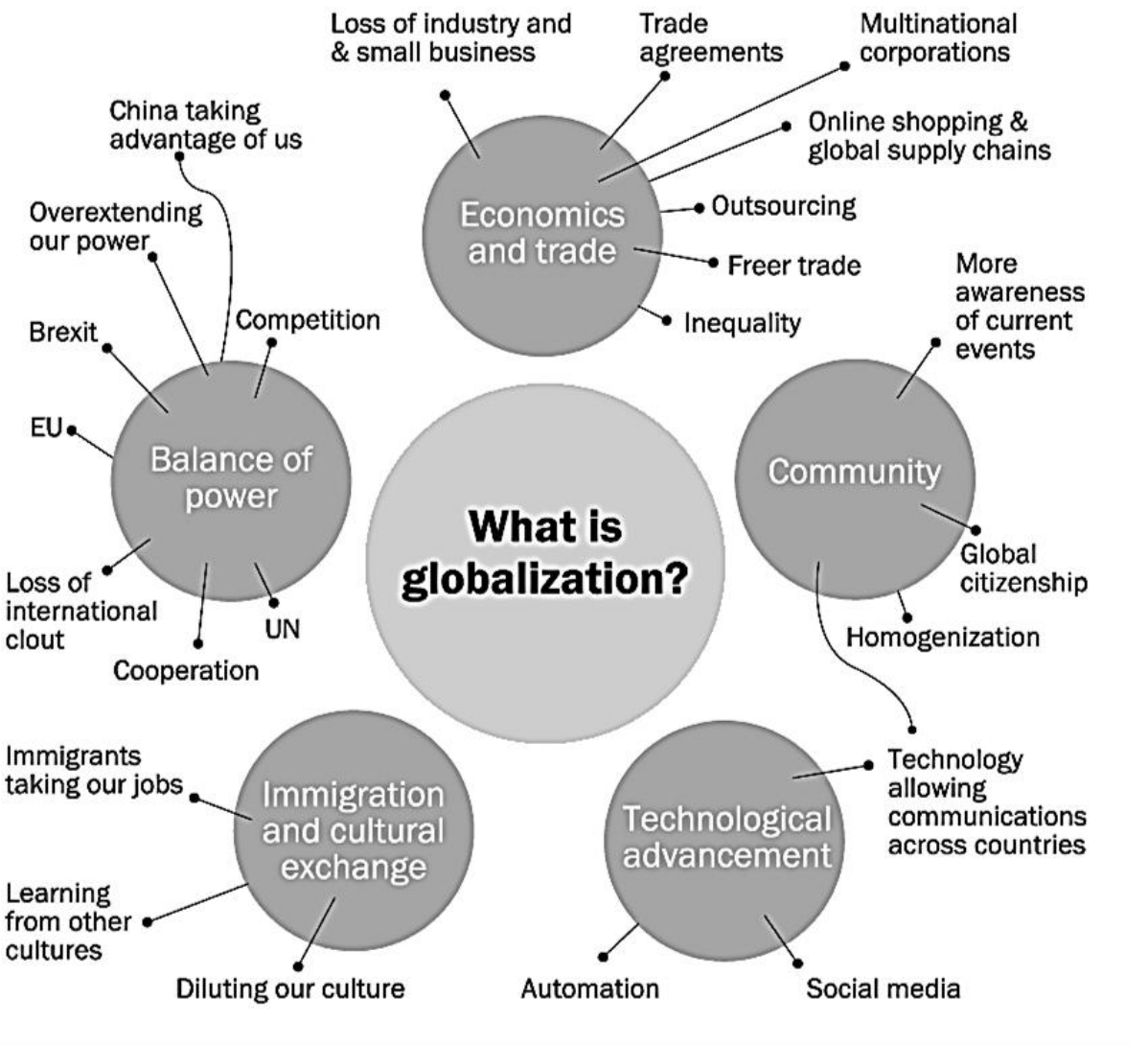

Figure 1: What is globalization?

So-called, physical geography appears to have little to say about globalisation, which doesn't seem at first artificial or artificial. However, geographers have drawn attention in various ways to the changing and change of globalisation in space and time – they "complex" the phenomenon, so that any consideration of the globalisation syndrome from an environmental and physical geography perspective cannot be wrong. This article attempts to provide an initial background for combining physical geography with the debate on globalisation, partly by connecting it to the broader geographical problem. This is a point of departure for discussions and an introduction to some literature that may be important. It offers examples of how globalisation has influenced and affects Physical Geography as part of environmental research and considers Earth System Science and Sustainability Science to be perhaps the dominant rival candidates for the Early Twenty-First Century environmental science paradigm.

PHYSICAL GEOGRAPHY, A GLOBAL SUBJECT

Geography of the Physical Environment includes the characterization and explications of and interaction on Earth's surface between geological, hydrological, biological and atmospheric phenomena. This was also done with respect to human activity and occupation. The physical

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geography should not be distinguished from the considerations of geography as a whole and from discussions about the past, present and future interconnections of ecosystems and human behaviour from the perspective of scientific and historical completeness and the concerns about the relation between people and their climate. There are no single paradigms for geographical research, as Gregory (2009) points out: geographers have taken borrowing from the various topics, language practises and technologies of the Natural, Physical and Social studies and the interconnectedness of geographies [3]. Geography can thus historically be regarded as a kind of ongoing result of intellectual globalisation. The aim is to seek new ways of dealing with environmental and societal problems and questions, which seem to be more interlinked, on a global to local scale, between people and society. In this class, new epistemologies are looked for in cross- and multidisciplinary study in the face of globalised environmental and social problems. These break from ancient scientific models and reductions and build on modern concepts such as post-normal science and complexity theory [4]. They also reinvent old subject areas in new ways, such as Earth system science, which pose both challenge and opportunity for the disciplinary activity of the physical geography.

An intriguing possibility for physical geography also includes a recent vision of geography in this context of emerging challenges and new thinking. Some of the inventiveness Smith alludes to in recent decades in the fields of environmental study and in the appeals for new kind of research and scientific participation by physical geographers, in particular Sustainability Science and Earth System Science. These are all examples of operating globalisation and are discussed later. In the first instance, however, there are some aspects of an older globalisation and its effect on physical geography's growth and status [9].

THE 20TH CENTURY AND GLOBALISATION BY SPECIALISATION:

A way in which physical geography replied to the dilemma of "bread versus depth" was to more closely link the physical science of the world to the human occupation of the Earth, and thereby explain physical geography as a knowledge of the interlinkages between humans and the environment. This served very well as geography dealt with broader regional earth descriptions, even though Physical Geography was still a descriptive backdrop of human activity: regional geographies mostly began with physical descriptions of the surface of the soil, and regions in general were themselves landscape-based [6]. However, this same characteristic was also intended to restrict the links between physical geography and other physical, environmental and methodological sciences.

The evolving function and relationships of geomorphology are the clearest example of this [8]. This discipline was characterised by large-scale country type and country description from the late 19th century, forming an ideal context for other regional geographies. The result was elaborate chronologies focused primarily on stratigraphical similarities and the landform – denudation chronologies – in the absence of dating methods, paleo clips reconstruction techniques, and thorough geophysical understanding of Earth's endogenous processes. This did not include 'independent' empirical experimentation and few other scientific characteristics bound them to contemporary conventional science beyond deductive reasoning. Therefore, the geomorphology group was internally oriented and separated from science and concentrated primarily on a supporting or separate position in geography.

This vast approach in land denudation possibly had hit its limits in providing new information at the middle of the twentieth century. The quantitative geographical revolution was also redundant, with a move away from the regional geography model. Geomorphology has

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responded twofold: firstly, the opportunity and need to redefine, re-connect the geo-morphology, physical geography and geography in general and connect geography into a new and more lasting scientific context were realised by particularly far-sighted practitioners like R.J. Chorley. In reality, this was an attempt to recapture an older type of globalised methodology. The vehicle for this was general system theory, but in several respects, it was in advance and today it is best suited to respond to global ecological problems. A second response was to concentrate on more conventional and reductionist physical science. This underlined the investigation in a smaller scale of surface shaping processes. In the context of numerous environmental modes of dating, paleoenvironmental rebuilding and large-scale Earth observation, significant progress was also achieved. All were well represented in physical geography, but within the topic they evolved independently. Today, none of this is well linked with the increasingly evolving strands of geophysics outside geography. In addition, none is well positioned to take advantage of integrative science opportunities or to face the challenges that global environmental dynamic understanding demands – that is, a new era of scientific globalisation.

The important lesson of this history is that the character and popularity of academic subjects shift over time and that a globalising subject demands special situations to prosper. The post-illumination era to the middle of the 19th Century was a period of so-called "new" awareness that develops through a very wide variety of classifies and organisations. As it was done, there was increased credibility in a more oriented analysis that required distinctive methods. In the nineteenth century, physical geography was judged to be lacking in the focus of its research as well as in distinct epistemology to reveal its new knowledge [5]. Their answer gave them a distinctive character but separated them from other Earth sciences. The condition continued until the mid-20th century, when the retooling of physical geography, which was characterised by growing specialisation, dependence on techniques and smaller laboratory studies, took it closer to other physical sciences, as well as to another research. Despite its strong support for general theory of the system. However, the stage for the reappearance of a subject cast in the general system and the recovery of some of its far more ancient heritages was not set until the end of the 20th century. New environmental classes, the emergence of concepts for science such as theory of complexity, debates that encourage more interdisciplinary and transdisciplinary studies and new technology that can be used for global environmental monitoring with local details were key players in this emerging stage. In a globalising world, globalisation has, in some ways, thus provided the conditions for a reappearance as a force with Earth systems science of a more ambitious physical geography.

SCIENTIFIC PERFORMANCE GLOBALISATION:

In the number and number of scientific journals and the power of web-based search engines such as Google Scholar and the ISI website, the enormous growth in the scientific output and the ease of access to it can be seen. At this point, for instance, Google Scholar was able to provide 1.37 million references under the keyword "Geography," and 588 000 under the keyword "physical geography" at around one tenth of a second while he was writing. This is promising 'Find different sources in one convenient place; find articles, abstracts and quotations; locate your entire paper through your library or web' What the strong search engine offers is unmistakable now, but a century ago it would have hardly been possible. The globalisation of information technology is a simple testimony – provided that people have access to it, of course. In the discussion on globalisation, access is a major challenge. Some representatives advocate the advantages of global understanding, while others warn against their monopolising and homogenization. People often generate information in areas that is

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not always fed into the global network. The growth of science or technology and other aspects of the globalisation syndrome can thus enable or deprive people of access to science [7].

The scientific production – documentation and publishing of the results – underlies the technology of information dissemination. Over the twentieth century, there has been exponential increase in academic and other journals, marked by an average compound annual growth rate of 3.3%, but also other fascinating aspects connect the academic and science results and activities with deeper meanings and implications of the globalisation syndrome.

Based on this study, the growth of academic journals (and science in general) cannot be distinguished from broader questions of finance, government agendas, and businesses in a broader scale, and from public perceptions of science's importance and value. The sources of further discussion are discipline-specific behaviours. However, scientific publishing is clearly part of the syndrome of globalisation. Over the twentieth century, research has left scientists and scientific organisations, increasingly dependent on trade and the changing economic and political agendas of the day.

Globalization of science is not just a matter of the size and access to scientific output. Globalization often concerns how research focuses on specific global problems that change global perspectives and needs. There are many examples of this in physical geography and environmental science. The following sections illustrate the historic and more recent presence of the Geographical Fields in the worldwide conservation movement and the political climate and, most recently, in the sciences of sustainability and earth systems.

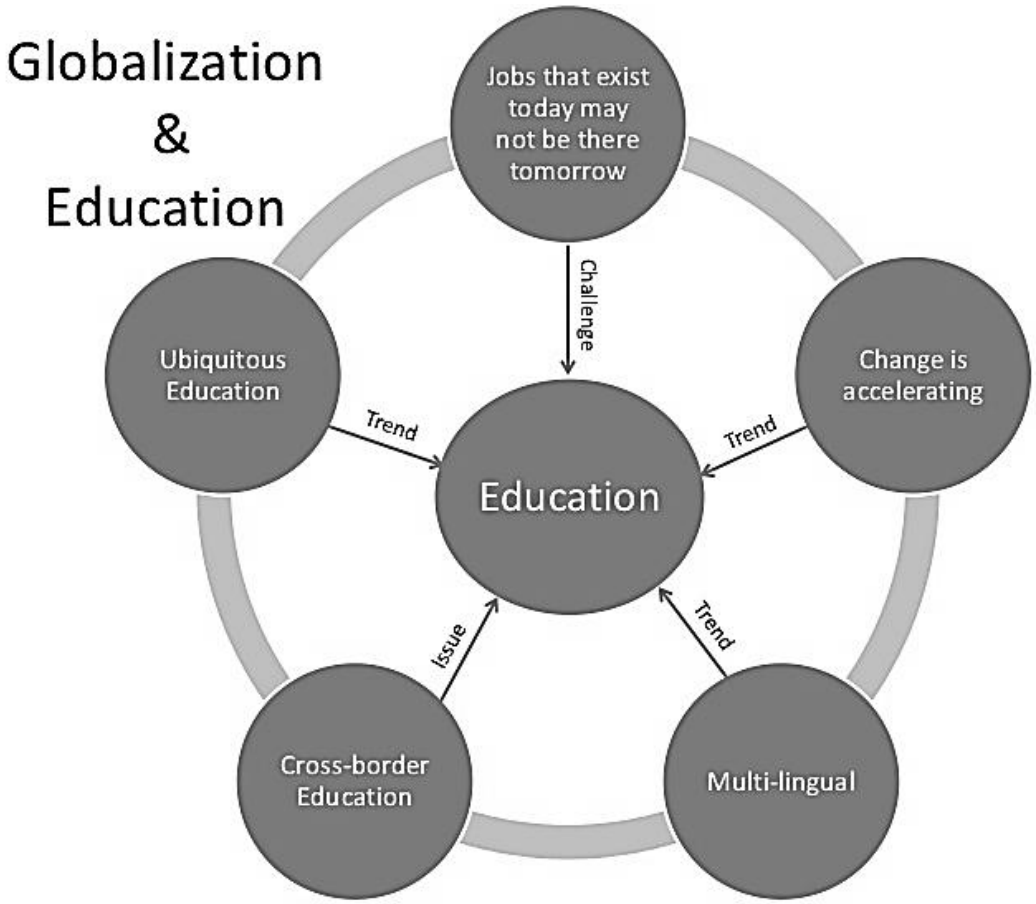

Figure 2: Globalization and education

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SCIENCE AGENDA GLOBALISATION – ENVIRONMENTAL CONSERVATION:

Warren's assertion represents a widespread feeling that all intellectual and practical ventures are inherently closely and closely linked to geography, the environment and conservation. Geography and geography are well-known chroniclers and popularisers of a message on preservation/development. They are representatives of international environmental assistance and organisations that have created both a model and a seminal work area. Conservation and Geography were historically regarded by European powers (and European companies) of tropical islands and continents as inseparably linked with the commercial discovery and exploitation of new territory. The first settlement waves led to rapid deforestation, and land and water resources were rapidly depleted. Initial efforts for preserving the environment, mainly championed by naturalists or polymaths, were accompanied by private-capital funded discovery journeys. They were generally trained in medicine and gradually in botany and geology. Conservation theories are essentially based on the principles of connecting components in an environmental setting, and the work of Alexander von Humboldt is based on Grove's environmentalism. Early recognitions of the fact that European rule, and therefore unfettered capitalism, could be environmentally destructive in a way that reminiscences the criticism of globalisation nowadays – firstly, the local landscape, lifestyles and people; secondly, the availability of resources; and, later, the local and maybe global operation and sustainability of climate & environment.

SCIENCE AGENDA GLOBALIZATION – POLITICAL ECOLOGY:

Political ecology deals as over-exploited and undervalued with research on resource and exploitation, earth destruction and marginalisation and the climate. This line of investigation started in the 1970s and has been expressed most clearly in the political economy of soil erosion of Blaikia (1985) and land depletion and culture of Blaikie and Brookfield (1987). These contribute to the identification and classification of unequal development in a broader range of geographical conditions. The main theme is that problems and environmental concerns are expressions of a "nature philosophy." This ideology masks social inequality due to the unfair distribution and exploitation of resources while claiming that the problem arises as a result of human impacts is scientific.

The original and central example of Blaikie is the African landscape of the rangeland and an exaggeration and decay problem: the colonial administrations have seen and construct nature and the natives in a valued way at various times and at different levels, leading to coercionary and resistant policy for the conservation and management of the environment. 'west research,' focused on field studies in the United States since the 1930s, followed an erosion pattern. This highlighted the gradient and the length of the path as key erosion loss variables and made the indigenous carpentry techniques an aggravating factor. The solution was to embrace terracing with an overall paternalist and modernising view and to change land use, and land ownership practices at an enormous political cost. However, in the decades that followed, the erosion paradigm was challenged, resulting in stress on rains (not dominated by terracing) and an alternative conservation strategy to re-evaluate local expertise. Erosion was controlled by traditional ground covering methods, less intensive tillage and intercropping in this re-conceptualisation.

Thus, a wider, deeper integration of science into the policy and governments, from colonial and postcolonial administration to global assistance organisations, has been expressed in this

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central problem of erosion. Blaikie argues that approaches to nature reflect less on "truths" and more on understanding policy narratives. Since these narrative studies call for a globalisation view and criticism of it, the "evidence" also reveals new dimensions to the world, the challenges of conservation and reconstruction, and its solutions or responses within a social and political context. It is also an anti-globalization solution to a political agenda for changing through improving representation and clarification.

TECHNOLOGY GLOBALIZATION - EARTH SYSTEM SCIENCE:

Earth Systems Science (ESS) is a label used in a variety of disciplines dealing with aspects of Earth's physical and biological systems to build structure and consistency In the 80s NASA enacted ESS to structure their earth observation operations, but it has since broadened to include most of the historical territory of the Physical Geography of the country and most of what could be called 'integrated geography.' The word ESS is now commonly employed by academia, research funding bodies, environmental organisations and scientific publications. Its three distinguishing features concentrate on the interactions between the natural world's component systems; on systems that include and link natural and social subsystems; and on its global scale.

It's clear that ESS is intentionally not only a 'modern' intellectual company (originally and allegedly distinct due to its size, scope and technology) but also a new theme that unites science. There is an explicit agenda for the globalisation of science in some writings: its meaning, its practise and its products. In certain ways it is timely and balanced to recognise the possibilities of enhancing relations between different world studies and environmental sciences. ESS is also what may be called an offensive project in other pictures. It has great, absolute goals. ESS is now popular in all U.S. geography programmes, for example, and replaces the title "Physical Geography" in some cases.

TECHNOLOGY SUSTAINABILITY: GLOBALIZATION OF SCIENCE AGENDAS

Sustainability Science has recently emerged as a systematic response to ideas and sustainability concerns generated in the 1980s and 1990s to look at global and regional linkages between climate, growth and society. The discussions highlighted a gap between wealth and the lifestyle and growth interests and their environmental-company relationships between the North and South. Sustainability Science is about developing and formulating a strategy addressing global issues of environment and sustainability. It also provides the clearest example of the essential fundamental parts of globalisation syndrome of environmental science and physical geography.

Kates et al. (2001) are clear that sustainable development needs a different kind of research: sensitive regionally and locally, and not merely 'top down' to apply science or policy. Thus, they distance themselves implicitly of what can be called "globalisation as McDonaldization" and approach the more nuanced concepts of scale and their definitions which are debated in Marston et al (2005). The overarching idea here is a 'flat ontology,' which breaks down with the hierarchy of large/small and site/region/globe views. Space and place are, to Marston, more like networks and nodes for interaction between people and the world, which generate a broad range of political opportunities to work with society and the environment. Although hierarchical concepts of space and position tend to lead people and places to ideas as passive beneficiaries of globalisation, flat ontology recognises that people are seen and are seen as agents of their change and representation. Therefore, the Sustainability science is one more way to challenge and complicate globalisation as a philosophy and become agents of the

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mechanism of globalisation through the latest representations of nature-science-development relations.

CONCLUSIONS:

As usual in the economic and social sciences, globalisation refers to the growing connection or integration of societies through economic, social and cultural change. This is also associated with emerging capital and knowledge transfer technologies. It is not a widely used concept in physical and environmental science, even though the connectivity, multiple scales, complexity, and the basic links of many environmental issues to human activity, economic growth, and sustainability are more well understood.

Geography is a natural topic in which such dynamics and relationships are examined. It is both a vehicle and a key contributor to research, climate and development policy globalisation. Geography and geographists have played a key role in increasing understanding of the global human influence on Earth's surface systems and supporting fundamental scientific knowledge and creating tools for grasping and managing these effects. It has also contributed in a number of forms to shaping and changing discussions and research priorities connected with globalisation, from esoteric scholarly criticisms to strategic strategies in government and nongovernmental organisations, to more mainstream programming.

Histsored by the exports of western capital around the world and by organisational shifts in science and academic institutions in the 19th century, both can be considered early manifestations of globalisation, geographic structural substance, and geographers' practices been dominating. Geography and physical geography also form part, from a contemporary viewpoint, of a wider science and academic culture that is being reformed and transformed into globalisation, which has been characterised today by growth in IT and environmental democratisation. Neither physical geography nor physical geographers can nor should be resistant to globalisation, as the globalisation process can be modified and shaped as a globalising agenda.

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