Territories: management of complex systems for socio spatial equity in Africa

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Summary:

We propose in this paper to return first to theoretical sub-bases that make - or not - territories a complex systems to manage. We then come back to complexity, systems and territories as key concepts. In a second step, we try to link economic growth and socio-spatial equity. Indeed, the result selected for the macroeconomic level will be conjugated / submitted to the territoriality screen. Moroccan regions will be questioned in terms of social and spatial disparities and therefore of socio-spatial equity. A comparison between Morocco, we will present Egypt and South Africa's cases in a third point.

In addition to the analysis of the literature, we re-ly on the statistics produced by the World Bank for the three countries. We will try to find out if we are achieving a convergence trend for these countries and their local authorities. In addition to the Moroccan regions, the Egyptian governorates and the South African's provinces are also interviewed.

Keywords: Complexity - Complex Systems - Territory / System - Sociospatial Equity - Africa

Introduction

The territory is becoming one of the highly debatable concepts in both the north and the developing world. It may seem anomalous for local / regional / international authorities to fuel the controversy over restructuring. However, such a revenge of territory - as modernity - implies many legal, economic, philosophical, cultural, technical, sociological and managerial dimensions. The territory calls for different readings, which gives it a particular interest in doctrinal and scientific research (Sedjari - 2006).

Current globalization is a process of restructuring of all kinds. In terms of institutional restructuring, "nations-states" become, for business strategists, rigid units that pressure groups make ineffective in creating and redistributing wealth. These nations-states are gradually giving way to "states-regions" (Ohmae-1995). A source of certainty for some, "territory-system" or "system-territory" is - for others-responsible for uncertainty and concern. In a context where capital, digital/virtual, economic and social interact, companies are also constantly restructured (Eddelani-2014). The issue of technological capacity building and learning in developing country firms also challenges their territorial anchoring (Elkhabli-2005). To connect growth and development, a renewal of the solidarity of the peoples of the South is resurfacing (Amin-2005). Moreover, this solidarity is now proclaimed even in the countries of democratic and industrial tradition (France yellow vests currently).

In the "southern countries", imbalances accumulate. The politics of geography, and in particular social geography, engage the researcher in the problems of development of his space (Laoudi-2001). The spectators remain present at this level. Some space-territorialists question whether there is a kind of "end of development" after more than six decades of theories, models and development policies without great results in developing countries. Faced with exclusion and precariousness, how to create wealth? Under what conditions and according to which strategies? (Fvreau-2005).

A renewal of territorial development paradigms is necessary. Past experiences have made progress, but setbacks have also been made (Fontan and Tremplay - 2005). In the countryside as in the city, there is the industrial / agricultural production, the practice of tourist activities, residential and commercial areas. However, at what doses does the entrepreneurial and the territorial interact? (Gagnon, 2005). Different theories will be developed to analyze the relationship between productive and spatial spheres: innovative environments, local or local production systems, clusters, competitiveness clusters, etc. Although this has long been based on the technological innovation of the industrial sectors, the resources of the natural, historical and sociocultural heritage anchored in the territories generate and preserve niches of opportunities (Maillat & al. 2004).

In the Moroccan case that concerns us here, the various industrialization tests have created a "mosaic" map with predominant regions and others modest. Cities are also in a sort of magic cube. Local authorities (municipalities and provinces) present the backbone of the kingdom. Twelve regions, seventy-five prefectures and provinces and the 1503 communes 33,800 458. The new organic laws governing these territorial communities give them a large margin of investment and management, but spatial disparities remain.

We propose in this paper to comeback first to theoretical sub-bases that make - or not - territories complex systems to manage. In a second step, we try to link economic growth and socio-spatial equity. A comparison between Morocco, Egypt and South Africa will be presented in a third point. In addition to analyzing the literature, we rely on statistics produced by the World Bank for the three countries. To try a new multidimensional measure, the concept of societal poverty line is introduced. It also analyzes how inequalities within households can affect the profile of the world's poor. For the latter, poverty remains high in sub-Saharan Africa, as well as in fragile and conflict-affected states (Worldbank.org/PSP).

1. Territory / complexity, what are we talking about?

Before attacking the concept of territory, let us start with that of complexity.

1.1. Complexity...

One of the watchwords of the current context is to understand the complexity that surrounds us. For this, let us go back to the term before the concept. Phonetically, complexity refers to two adjectives that are close but distinct: complicated and complex. According to "The Robert" complicated means "who has many elements difficult to analyze" and complex means "that brings together several different elements." Etymologically, complicated goes back to "cum pliaire" meaning in Latin that it takes time and talent to understand. For complex, we find "cum plexus" alluding to all interconnected and the understanding of an element requires that of others. It is all that is woven together.

In an intuitive way, complexity will be character of what is complicated and complex. Academically and scientifically, advanced language makes it category of analysis that is now transversal to all sciences, both exact and social. We do not want to do philosophy or approach the science of knowledge. However, talking about territory and complexity cannot be isolated from the current context of globalization, which conveys complexity and uncertainty under E. Morin. Only complex thought would allow us to civilize our knowledge (Morin-2005). What does the author want here by complexity before "complex thinking»?

Organizational and strategic management theory (M Porter and others) have linked complexity to the turbulence of the corporate environment. It presents it as one of the constraining characteristics of the ecosystem in which the organization mut be called to master the components and their interactions in order to create and maintain a competitive advantage. Such a conception remains limited compared to that of Morin, which links science to consciousness, to emotion and therefore to society. In his writings as in his lectures, this author starts from the simple observation that things are not isolated. They are linked as such. In this sense understanding will not only, come down to understanding one aspect separately from the fact that it is the result of others. By extension, we live the complexity, he says. We are "producer and product of society", everything is in the game and the game is in everything, we started from our species and the latter is in each of us ... we are parts of a system that is in us as citizens, as actors, as organization.

The complexity then reverts to the multiplicity of components and relations between them that are not always predictable. Without going so far as to eternalize the concept of dialectic, he revisits it by specifying that complexity refer to a unity made of diversity. It is the presence of heterogeneous elements that go together in a context of uncertainty. Faced with complexity, the actors must lead a simplistic, disjunctive and reductive thought; hence "complex thinking". The latter is for Morin the art of understanding uncertainty, complexity. "Complex thinking" based on trilogy: "dialogic - hologram - systems theory" goes beyond the simple principle stage and directs actors in the context of complexity to act other than reductionism. Applied to the territory, the complexity refers to the management of complex systems (ref: third section of this paper). What exactly do we want here by territory?

1.2. Territory...

Taken from geography and administrative sciences, the territory overflows for economists the concept of space to become a scientific category of analysis tending to universalism. Indeed, beyond simple support where economic activities are projected, the territory takes, sometimes, abstract meaning of a simple "built of actors". It allows thinking complexity because it is economy, space, history and culture at the same time (Pecqueur & Zaoual). We then witness the passage from the space-place (simple data or framework where the activities are projected and localized) to the space-territory (active unit of development and "built of actors"). The territory is both, reminds us B. Pecqueur:

- A container of generic and non-transferable resources;

- A form of organization / coordination of actors;
- A formal and informal learning dynamic.

Т

The territory is space energized by the women and men who are his actors.

Such a requirement means that competitiveness and marketing are no longer confined to companies and governments, but also to infra-state and community territories. A strategy marking a paradigmatic break with the Keynesian macroeconomic theory but also the microeconomic reductive of homoeconomicus, as shown in the figure below:

Competitiveness of:

Competitiveness of:

Business

Nations

3 factors: economic, human and territorial capital

3 dimensions: economy-society-environment

E

3 types of partners: political / institutional, socio-economic and

3 Objectives: economic, social and heritage efficiency

3 logical: State - Market - Territory

Figure N ° 1: Territory and challenges of globalization

However, in what combination? To which endowment each?

Source: Oumhani Eddelani - FSJES- USMBA- 2015 (séminaire de gouvernance territoriale)

We justify why having combined complexity and territory in this first section dealing with the conceptual and paradigmatic framework by asking the following question: on what basis to build compromises between actors to the logic of different actions for sustainable territorial development (DTD) that refers, himself, to conflicts of logic?

We can conclude this first vollet by a theoretical model built on the practical modalities of the use of geosystem analysis in the social sciences by emphasizing som aspects of basic research (history and archeology of the geosystem) (Beroutchachvili et al. 1979). As a summary diagram of the conceptual framework, we can retain the following figure:

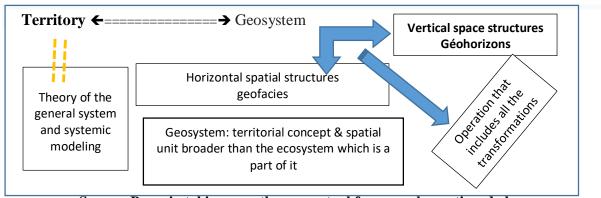


Figure N ° 2: Summary diagram of the conceptual framework

Source: By us in taking over the conceptual framework mentioned above

The territory to be discussed in developing countries is expected to contribute to the launch of economic growth for purposes of convergence and inclusion of development through space. The territorial unit that we will retain for this test is -for Moroccan case- the region before trying the comparison for the Egyptian governorates and the South African provinces.

2. Economic growth and socio-spatial equity, what about-it in Morocco?

The case of Morocco does not come out of a global trend where the relationship between economic performance and social equity are questioned. Moreover, with the restructuring experienced by the territories, the spatial variable intervenes and socio-spatial equity becomes the order of the day. In the era of omnipresent complexity, researchers, academics and actors from all sides are talking about social and socio-spatial disparities. Fashions and theoretical models go beyond sociology to invade other disciplines such as economics and management. Currently, multidisciplinarity is integrated as a way of tackling this complexity. We are talking about a new spatial approach to social exclusion (Mathieu-2005).

In a supra state, regional context marked by a lot of restructuring movement at the political and socio-economic levels, the kingdom of Morocco adopted in 2011 a constitution ecognized voluntarist. It embodies the principles and mechanisms of good governance, which combines the conditions of dignified citizenship and equitable social justice (2011 constitution - P 7). For the Government Program (2017), the fight against disparities in income, poverty and precariousness is an essential axis of government action for the current legislature. The program aims to strengthen solidarity, support precarious categories and those with special needs and set up funding for programs to combat socio-spatial disparities.

For the Parliamentary Forum on Social Justice, the Rabat Declaration affirms that dignity, solidarity, justice, equity /quality of opportunity, rights and non-discrimination must be the foundations of the Moroccan model of social justice. It also advocates better exploitation of the mechanisms of participatory democracy and the new system of competences of local authorities. It also means the force of proposal enjoyed by the constitutional advisory institutions and civil society, gender budget planning, cumulative gains by the National Initiative for Human Development (INDH) and other similar national programs, in order to complete the participatory building of the Moroccan model of social justice (Portal of the kingdom-2017).

The Kingdom of Morocco has implemented important reforms to reduce territorial and social disparities by aiming at the diversification of the economy, the provision of efficient public services and a significant investment in human development. This ambition is associated with the desire to develop productive territorial development that is economically, socially and environmentally sustainable (Government statement 2017).

In front of these declarations of intention, statistics coming from national and international operators (HCP, OECD, UNDP, WB ...) come to report a reality causing questioning, analysis and controversy: What exactly do we want by socio-spatial disparities? Especially in Morocco? Which theoretical corpus to use for their explanation? What is the causality between social disparities and spatial disparities? To what extent is the reputation of some areas likely to stigmatize the populations residing there? Can sociospatial disparities affect social peace and stability?

To try to approach some answers to these questions, and without going back in depth to the theories of "the economy of happiness" / welfare economy, theory of justice, new geographical economy, local public economy, urban economy, proximity theory ..., we interrogate a set of indicators relating to the twelve Moroccan regions via the two figures (3 & 4) below.

Given the multiplicity of indicators and the difficulty of homogenizing their different logic, we borrow from the Directorate of Studies and Financial Forecasts (DEPF) an indicator that integrates a range of sub-indicators taken from the Sustainable Development Goals (SDGs). This is the summary index of sustainable development objectives (the ISODD) through which the DEPF synthesizes more than 50 indicators for the 12 regions of the kingdom. It is a so-called "scoring" gymnastics exercise, in line with the one adopted by the United Nations in the framework of the "SDG Index and Dashboards Report 2018. This report is about "global responsabilities, implementing the goals". It offers the possibility to compare and rank the 12 regions of the Kingdom in terms of their convergence /performance towards the objectives targeted by the 2030 Agenda "(DEPF -2018).

Béni Mellal-Khénifra

8
Casablanca-Settat

7
Casablanca-Settat

9
Dakhla-Oued Ed-Dahab

Natrakech-Safi

L'oriental

L'aiyoune-Sakia El Hamra

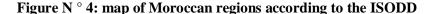
2004

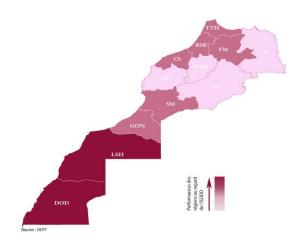
2014

National 2004

National 2014

Figure N ° 3: Evolution of the ISODD of Morocco and its regions between 2004 and 2014





The ISODD takes into account aspects that are supposed to converge towards sociospatial equity: sustained economic growth, decent employment, access to basic infrastructure, happiness and well-being, health and basic education, environmental sustainability, fight against poverty and vulnerability...

By breaking down the indicators for the 12 Moroccan regions, the DEPF study classifies them in three categories according to the evolution between 2004 and 2014. For more analysis and clarification, we select four groups. Indeed, as spring of the card, we have:

- i. The regions: Laayoune-Sakia El Hamra (LSH) and Dakhla-Oued Ed-Dahab (DOD) with 6.3 and 6.2.
- ii. The region of Casablanca Settat (CS) singular with 5.4.
- iii. The following four regions whose ISODD is greater than or equal to the national average (4.3) are: Guelmim Oued Novo (GON) and Sous Massa (SM) 4.9, Tangier Tetouan Alhouceima (TTA) 4.6 and Rabat Salé-Kenitra (RSK) 4.5.
- iv. The remaining five regions have an index lower than or equal to the national average. These are Fez-Meknes (FM) 4.3, Marrakech Safi (MS) and Oriental (O) 3.9, Drâa-Tafilalet (DT) 3.5 and Béni Mellal-Kkénifra in last position with an ISODD of 3.1.

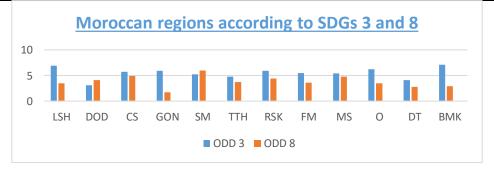
Table N ° 1: Score of Morocco and its regions relative to the ISODD and the 11 SDGs (2014)

Scores du Maroc et de ses régions relativement à l'ISODD et aux 11 ODD couverts (2014) 10 14 ISODD Laavonne-Sakia El Hamra 8,0 6.9 8,4 9.7 Dakhla-Oued Ed-Dahab 3.8 3,1 9,5 7.0 8,9 6,2 10.0 9,2 Casablanca-Settat 7.1 4.9 4,0 5,9 4.5 5.4 Guelmim-Oued Noun 3,8 6,5 5,9 10,0 3,9 3,1 6,6 4,9 Souss-Massa 8.8 6,0 6,6 1.3 4.9 Tanger-Tétouan-Al Hoceima 6,6 9.8 6,3 0.3 4,6 Rabat-Salé-Kénitra 5.9 5.3 6.3 6.8 3.8 0.0 4.5 National 5,1 4,0 5,7 4,2 4,6 0,3 4,3 4,6 3,6 Fès-Meknès 4.5 4.0 3,6 6,2 0.0 4.3 2,0 Marrakech-Safi 5.1 4,8 5.4 0.1 3.9 0.1 L'Oriental 48 6.2 39 5,8 3.9 Dråa-Tafilalet 0,9 4.0 8,6 2.8 0.0 3.5 Béni Mellal-Khénifra

If we take the objectives, 3 and 8 relating respectively to well-being at all ages and sustainable and sustainable economic growth, we find that they do not rhyme. Otherwise a region like BMK whose SDG 3 reaches 7.1 only records 2.9 for the SDG 8. The same remark for the regions GON and O.

Table N ° 2: SDGs 3 and 8 for Moroccan regions in 2014

| ODD | | | | GON | | | i . | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ODD 3 | 6.9 | 3.1 | 5.7 | 5.9 | 5.2 | 4.8 | 5.9 | 5.5 | 5.4 | 6.2 | 4.1 | 7.1 |
| ODD 8 | 3.5 | 4.1 | 4.9 | 1.7 | 6 | 3.7 | 4.4 | 3.6 | 4.8 | 3.5 | 2.8 | 2.9 |

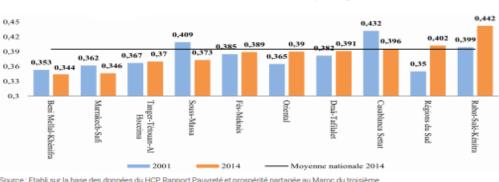


Source: Shaped by us on the basis of the data in Table N ° 1 above

The search for socio-spatial equity begins with the characterization of social and territorial disparities. Indeed, the preceding elements show that the Moroccan regions present several inequalities. These must be analyzed and modeled in order to build momentum for equity / equality, justice and fairness. In conjunction with the territory, equity links social and spatial dimensions and thereby determines economic efficiency. Moroccans are aware of this at all levels as the following excerpt shows: "Over the past two decades, the achievements of Morocco and the gains made in favor of Moroccans have been a source of satisfaction and pride. Yet, I have the feeling that something continues to be lacking in social matters. By the will of God, we will continue the action carried out in this field with all the commitment required and the necessary rigor. Together, it is up to us to identify the existing weaknesses and to provide them with the appropriate remedies" Extract from the Speech of The King Mohammed VI on the Throne Day, July 29, 2018.

Figure n°: 5 Evolution of the Gini index by region

Evolution de l'indice de Gini par région 2001-2014



Source : Etabli sur la base des données du HCP, Rapport Pauvreté et prospérité partagée au Maroc du troisième millénaire 2001 – 2014

The analysis of regional disparities in Morocco has been the subject of several national reports and international organizations. *Much is being done* to reduce socio-spatial differences in the framework of the NHDI or National Initiative for Human Development, but *much remains to be done*. On the recommendations of these reports, three strategic axes. The first speaks of "structural levers" limiting the proliferation of inequalities at the source: broadening the bases of creation of wealth and fight against inequality of chance. The second axis concerns the pooling of efforts and the coherence of sectoral policies in this area. The third axis is of a technical nature and concerns the information system. The latter must be efficient, fair and precise to allow monitoring and ongoing evaluation of actions.

3. Management of complex systems, Egypt, Morocco and South Africa as a case in point

In Africa as elsewhere, the question of socio-spatial inequalities versus growth is on all languages. Indeed, several authors of various persuasions leave behind a positive correlation, in the advanced countries, between the rise of inequalities and the slowing down of growth rates. This is the case of Thomas Piketty (Capital in the 21st Century (2015) and three Nobel Prizes Amartya Sen (Inequality Reexamined, 2012, The Idea of Justice, 2011), Joseph Stiglitz (The Price of Inequality, 2012; Great Divide, 2015) and Paul Krugman (The Conscience of a Liberal, 2009) as raised by N. El Aoufi (El Aoufi and Hanchan - 2017) What is the case for the triptych Morocco - Egypt - South Africa.

Before presenting the results of our investigation relating to the comparison of Moroccan, Egyptian and South African sub-state entities, we will return briefly to the concepts of systems, complex systems and their management.

3.1. From the system to the management of complex systems

By definition, a system is a set of components (subsystems) in permanent interactions. Indeed, the large number of nodes - especially links - makes it difficult to predict the evolution of the system. There comes the effort of abstraction / modeling to be able to understand before acting. Indeed, via consecutive tests, we conceive the rules of evolution and we simulate a system until the desired results are obtained. When the desired results are not achieved despite the modeling effort, the system is said to be complex (Thietart-2000).

For some "systemalists", any system can only be complex by definition. Indeed, from theory to practice, complexity calls for interdisciplinarity. Indeed, even in the social sciences and humanities, the artificial intelligence and the human one that is the source of it, makes us learn that if we manage to model a system taking into account all the parameters and their potential impacts, the complexity will be mitigated by simulation and "systemic prototyping".

Now let us present the complex system features and check if they will be verified for the territories. From the reading of (Genelot - 2017), (Thietart-2000) and others, we can retain six mains characteristics through which we query here the -territory system:

- ✓ The system is transformed in its interactive dynamism with the rest of the environment. This is the case for the territory.
- ✓ The complexity of a territory is worth self-organization donation and makes emerge its own properties. It's all about the intangible resources of the territories.
- ✓ The nodes are not all the same importance, we speak of a kind of hierarchy of components. For the territories, we find strategic actors, relay actors ...
- ✓ The interactions are not centralized, they occur locally. By definition the territory refers to decentralization / deconcentration and therefore non-centrality.
- ✓ Each component influences its growth through its action on its peers. The famous effect of the return of the action of the actors of a territory. Specialists speak of non-linearity and reflexive interactions and retroactive loops.
- ✓ Interconnectivity is both a source of fragility and strength. The territories are currently open, which is a source of opportunity. However, when the opening is not mastered it becomes a threat.

A complex system is thus a kind of windfall where are alternated simple and chaotic behaviors and several temporal and spatial scales.

3.2. Socio-spatial disparities in Morocco, Egypt and South Africa

Conjugated or not in development, capital and growth do not treat the territory in a standard way. Indeed, in addition to the differences produced by the physical endowments "gifts of nature", public policies - and especially territorial public policies - are often far from mitigating socio-territorial disparities. Diversity gives way to disparities (MATNUHPV-2018). Ultimate, Africa is a continent of contrasts. Blame, compliments, criticism and praise fit together to talk about it. Praise and hope when we talk about its potential and growth rates, "however, evaluated by the yardstick of political governance, economic management and social and administrative

management, Africa reveals flaws and failures that discourage the most optimistic "(Bassou et al., 2018). The author here presents a question of size when he asserts that the wealth of Africa seems powerless in the face of poverty that it cannot eradicate.

| Choisir une ou deux statistiques | Economie | Inégalités - Part des revenus détenus par le 1er quintile (les moins fortunét | 2015 | Vert | Noms de pays: 11 px | Vert |

Figure N $^{\circ}$ 6: Map of socio-spatial disparities in the world (Focus on Morocco - Egypt and South Africa

With an area of 710,850 km2, 1, 219,912 km2 and 1,001,450 km2 for Morocco, South Africa and Egypt, the populations of the three countries are 33,800,458, 55,653,654 and 94,798 respectively. 827 hab. These three African countries are ranked for area and population 58th and 38th for Morocco, 25th and 24th for South Africa and 30th and 14th for Egypt. Socioeconomic indicators also justify our choice. In fact, according to PPP GDP (in billions of US dollars -2017), our three countries rank respectively at 56th, 22nd and 29th places.

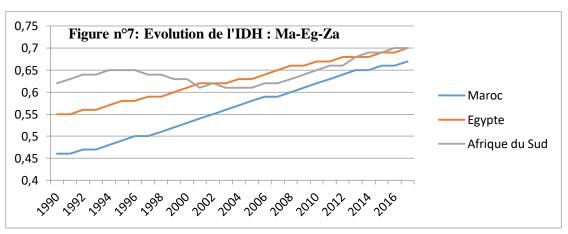
Morocco and Egypt experienced comparable growth rates (4.8% and 4.1%) compared to 1.3% for South Africa, but all are classified as "average students" in terms of human development (HDI: 0.667-0.696 and 0.699 in 2017) while Morocco 123rd against 115 and 113 for Egypt and South Africa. A contrast also appears when one takes into account the unemployment rate which exceeded 26% in South Africa against 12.2% in Egypt and 9.4% in Morocco.

One of the tools for addressing socio-spatial disparities between the three countries is the Human Development Index (HDI). According to World Bank statistics, the evolution of this indicator from 1990 to 2017 is provided by the following table:

Table N ° 3 : Evolution of the HDI for Morocco - Egypt - South Africa

| | Maroc | Egypte | Afrique du Sud | |
|------|-------|--------|----------------|--|
| 1990 | 0,46 | 0,55 | 0,62 | |
| 1991 | 0,46 | 0,55 | 0,63 | |
| 1992 | 0,47 | 0,56 | 0,64 | |
| 1993 | 0,47 | 0,56 | 0,64 | |
| 1994 | 0,48 | 0,57 | 0,65 | |
| 1995 | 0,49 | 0,58 | 0,65 | |
| 1996 | 0,50 | 0,58 | 0,65 | |
| 1997 | 0,50 | 0,59 | 0,64 | |
| 1998 | 0,51 | 0,59 | 0,64 | |
| 1999 | 0,52 | 0,60 | 0,63 | |
| 2000 | 0,53 | 0,61 | 0,63 | |
| 2001 | 0,54 | 0,62 | 0,61 | |
| 2002 | 0,55 | 0,62 | 0,62 | |
| 2003 | 0,56 | 0,62 | 0,61 | |
| 2004 | 0,57 | 0,63 | 0,61 | |
| 2005 | 0,58 | 0,63 | 0,61 | |
| 2006 | 0,59 | 0,64 | 0,62 | |
| 2007 | 0,59 | 0,65 | 0,62 | |
| 2008 | 0,60 | 0,66 | 0,63 | |
| 2009 | 0,61 | 0,66 | 0,64 | |
| 2010 | 0,62 | 0,67 | 0,65 | |
| 2011 | 0,63 | 0,67 | 0,66 | |
| 2012 | 0,64 | 0,68 | 0,66 | |
| 2013 | 0,65 | 0,68 | 0,68 | |
| 2014 | 0,65 | 0,68 | 0,69 | |
| 2015 | 0,66 | 0,69 | 0,69 | |
| 2016 | 0,66 | 0,69 | 0,70 | |
| 2017 | 0,67 | 0,70 | 0,70 | |

Source: Table fashioned by us from Perspective World, date of consultation: 14/6/2019, source: Human Development



Source: Figure of our care via the data in Table 3 above

More expressive in terms of measurement of inequality, the second tool we take is the Gini index for the incomes we face with the GDP growth rate. This index makes it possible to account for the distribution of income between the populations of the three countries. According to its initiator C. Gini, the value of this index varies theoretically between zero and one. By extension, a value of zero means a perfect equity and the value 100 expresses glaring disparities. Given that in reality the two ends are never reached, the equal countries register a value close to 0.25 and those most unequal oscillate near 0.65. What about Morocco, Egypt and South Africa?

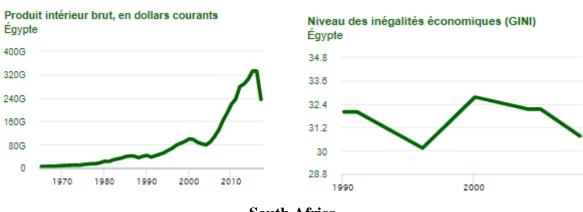
Figure N ° 8: Gini index for the income of the three Ma-Eg-Za countries

Morocco

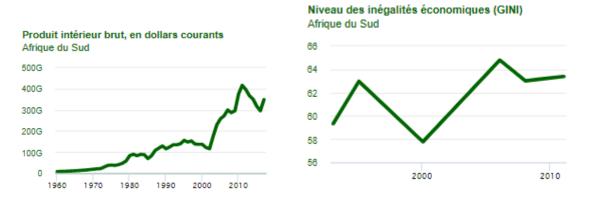


Egypt

2000



South Africa



Source: World Perspective, date of consultation: 20/6/2019

The first observation is that GDP growth is accompanied by inequality growth for the three countries and for the last decade of the 20th century & the first of the 21st century. The minimum values are far from the level of the most egalitarian countries, but the maximum values marked do not differ much from the indices of the most unequal countries (especially for South Africa 63.38 in 2011). Indeed, Egypt recorded in 2008 an index of 30.75 against 32.76 as maximum value in 2000. Morocco recorded 40.64 the same year and 40.72 as maximum value in 2007. However South Africa still records values exceeding 63.01 (minimum value of 2008).

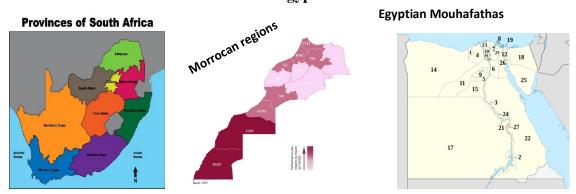
By way of comparison, China records values comparable to those of Morocco with a Gini index of 29 in 1981, 39 in 1999 and 43 in 2002 and 2008.

The expected results of this research are primarily a scoring for the 12 Moroccan regions in terms of creation of wealth and distribution of its fruits. Give a "snapshot" of Morocco through these territories-regions. In the second phase, try to apply the same approach for the sub-state territories of Egypt with its 27 "Mouhafafazat" and South Africa for its 9 provinces. What then represents this isosceles triangle Morocco - Egypt - South Africa for this cradle continent and future of humanity in the era of globalization?

3.3. Socio-spatial disparities of Moroccan, Egyptian and South African sub-state territorial entities

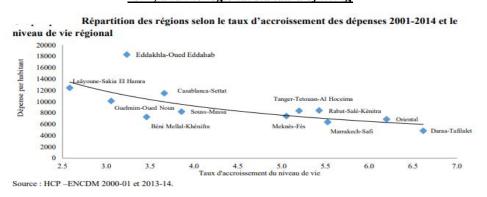
Given that the case of Morocco has been presented in the second section of this contribution, this last point will be devoted more to the cases of the Egyptian governorates and the South African provinces.

Figure N $^{\circ}$ 10 : The 9 provinces of South Africa12 Regions of Morocco 27 governorates of Egypt



Morocco: Let's recap, first, on the regional disparities in Morocco. According to the DEPF report, the two regions with both administrative capital and economic capital contributed to the production of almost half of gross domestic product: GDP, while five regions accounted for only 11 % about. Using the scoring method to position the 12 regions against the SDG by 2030, this report takes stock of what is being done and what remains to be done. As shown below (Figure N $^{\circ}$ 11), the disparities between Moroccan regions are gradually decreasing in terms of socio-economic conditions. However, territorial equity remains far from being achieved.

<u>Figure N^o 11</u>: <u>Distribution of Moroccan regions according to the rate of increase in expenditure (2011-2014) and the regional standard of living</u>



Egypt : Egypt is divided into 27 governorates or "mouhafadas" some of which are hyper urbanized and others still have many rural areas. According to the Ministry of Planning - authority to publish the regional accounts - the governorates of the Egyptian republic also presents glaring disparities. Ventilated in terms of manufacturing activity, nearly a fifth of governorates are home to three quarters of this activity. Five mohafadas (Cairo, Giza, Alexandria, Sharqia and Qalyubiya) acquired 75% of Egypt's manufacturing activity in 2016.

For agriculture, one of Egypt's historical activities, more than 50% of the activity comes from only 18% of the governorates. Indeed, in the five governorates concerned here (the lake, the east of the country, Kafr el-Sheikh, Dakahlia and Gharbia) come last for industrial activities, oil extraction, wholesale and retail trade. , real estate, construction, transportation and storage. The governorates with agricultural vocation, presents high rates of poverty (the lake for example 44% of agriculture in the GDP but a rate of poverty of 20%) (Ministry of the planning -2016).

In short, the distribution of economic activities and therefore of wealth remains far from equitable in Egypt. The "metropolis" / Cairo still concentrates much of the population and activity but also unemployment and poverty. The capital accounts for 33.7% of Egypt's gross domestic product (GDP), with a poverty rate of 18% and an unemployment rate of 16% in 2016.

South Africa: According to Statistics South Africa, the growth rate of GDP in the South African provinces and their unemployment rate make speking socio-spatial disparities. The unemployment rate at the level of the republic and more than 27% for the first half of 2019. Enlarged, this rate increases to 38%. This rate varies from province to province. A review of provincial unemployment trends over the last 10 years shows that two provinces, the Free State and Eastern Cape, have consistently had the highest unemployment rates (Statistics South Africa).

Ventilated in the provinces from 2009 to 2019, the unemployment rate gives us a map - mosaic. Eastern Cape and Northwest (27% in 2009), Mpumalanga (28.7% in 2010), Free State (29.4% in 2011 and 33.2% in 2012), Eastern Cape (27.8% in 2013 and 37.4% in 2019).

In questioning the speed of growth of the South African provinces and their disparity in terms of their contribution to GDP, Lungelo Matangira (11 March 2019) takes official data on the nine South African provinces and presents them in a dynamic and interactive graphic.

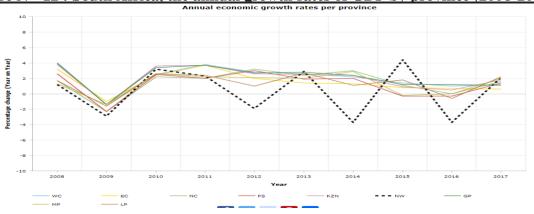


Figure N ° 12: South Africa, the annual growth rates of GDP by province (2008-2017

(https://www.southafricanmi.com/provincial-gdp-11mar2019.html visited on 23/06/2019)

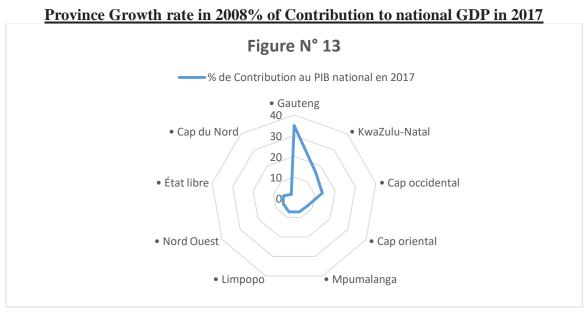
From this graph, the author draws the following conclusions:

- The growth of the republic is low for this period (financial crisis of 2008). This growth is decreasing year.
- For all provinces, growth is only marginally above that of the population. For some years and some provinces, the economy is growing more slowly than the population.
- The growth rate varies from one province to another: Gauteng and Western Cape have the highest growth rate (3.1%) and both contribute to almost 50% of South Africa's GDP (more one third for Gauteng and 14% for the second).
- Five provinces have a GDP growth rate ranging from 2% to 2.9% (KwaZulu-Natal, Limpopo, Eastern Cape, Mpumalanga and Northern Cape) and all five contribute 40.25% of GDP in 2017.
- The remaining two provinces have GDP growth rates below 2% and contributed 11.11% to GDP.

<u>Table n °: 4 GDP Growth Rates of South African Provinces and their Contribution to</u>

<u>Republic GDP in 2017</u>

| Province | Growth rate in 2008 | % of Contribution to national GDP in 2017 | | |
|-----------------|---------------------|---|--|--|
| Gauteng | 3.1 | 34,82 | | |
| • KwaZulu-Natal | 2.9 | 16,05 | | |
| Cap occidental | 3.1 | 13,86 | | |
| • Cap oriental | 2.4 | 7,53 | | |
| Mpumalanga | 2.3 | 7,25 | | |
| • Limpopo | 2.5 | 7,20 | | |
| Nord Ouest | 1.4 | 5,91 | | |
| • État libre | 1.7 | 5,20 | | |
| Cap du Nord | 2 | 2,20 | | |



Shaped by our own care via the data in Table 4 above

In terms of their contribution to the Republic of South Africa's GDP in 2017, South Africa's provinces can be divided into three categories: large, medium and small. However, Gauteng has by far the largest economy with over a third.

Conclusion

Whether the territory is taken in the sense of an administratively circumscribed entity, a spatially homogeneous geo-space or an active unit of sustainable socio-economic development overflowing the preliminary framework, it must be conceived in the sense and logic of a complex system. By using complex systems methodology, the territory's viewing and attack angles are multiplied as a scientific category of analysis and a unit of development and growth.

What to take from the review of the conceptual framework and presentation of the cases provided in this essay? Can we retain a trend towards an African-African model for the management of socio-spatial disparities? Do we approach the territory in the same way in the three cases studied?

There were four types of territory: state (Morocco, Egypt and South Africa), infra-state: the region in Morocco, the "Mohafaza" or governorate in Egypt and the province of South Africa.

The collaborative work of some French and Russian researchers of the Soviet era has shown since 1978 that the application of systemic analysis to the social sciences presented a research opportunity little or badly explored. The relationship between production systems and the system prevailed in so-called production ecosystems. Let us retain, following these researchers for African countries, what has been retained for the French case: the geosystem is that simplifying and integrating concept that has been lacking (which is still missing) in French physical geography (1978). But, in general, "geosystem analysis is not the job of a few researchers or even an isolated team. The practice of the geosystem implies, in the medium term, an overall reflection not only on the naturalistic research but especially on the insertion of the Nature in the social analysis".

Sociospatial disparities must yield to sociospatial equity to liberate all the forces of Africa and Africans. This is the annual report on the geopolitics of Africa announcing that "the vast expanse of African territory gives its sons a feeling of so much stifling cramps, that they prefer to die drowned in search of other spaces. In several African territories, the men and women who sacrificed so much for the independence of their countries, do not find the individual freedoms and the well-being they aspired to "(Bassou &al. - 2018).

However, if the diagnosis is alarming, the prospect is promising! The kingdom of Morocco that we know closely offers this perspective for more than one reason. the immaterial, the data, the science, the innovation and the coexistence are the framework of an Africa combining human and material wealth for the future of a humanity of which it is the cradle.

The best wealth is only the human.

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