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Full Length Research Paper

Sino-Africa economic and Chinese foreign direct investment in Africa on bilateral trade relations

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The purpose of this paper is to investigate the impact of Sino-Africa economic and Chinese FDI on Africa trade relations. China's phenomenal economic growth rate has made the country rise to world leadership status, causing many analysts to ponder over its regional and international intentions and goals. Its investment is paying off now mainly in oil and other raw materials imports and manufactured goods. We used a panel data to analyze Chinese FDI exports to Africa, and a time series data to investigate the effect of its imports from Africa. The study shows that Chinese FDI in Africa has contributed significantly to increase Chinese exports to Africa as well as imports from Africa. It means that Chinese DI in Africa is an important factor for explaining the growth of the bilateral trade. The research found also that per capita income and annual percentage growth of domestic product of China have a positive effect on its import. China might experience significant backlash from other world powers due to its involvement in African affairs. This paper aims to highlight the tight rope which Africa and China have to balance in their new found relationship to keep it on a win-win situation.

Key words: Economic development, Sino-Africa, trade, FDI, growth.

INTRODUCTION

China's remarkable economic recovery in the past decades has gained considerable world attention. This has been stunning critics and friends alike. Due to a record economic growth rate, China has become the world's second recipient of investment capital after the US. China's deepening integration into the global economy and emergence as an economic power has seen its influence expand into Africa, reshaping political and economic relationships on the continent primarily to secure access to the African market and raw materials.

In order to establish a mechanism for regular bilateral

exchanges, in October 2000, for the first time in the history of Sino-Africa relations, China proposed and held "the Sino-Africa cooperative Forum-Beijing 2000 Ministerial Conference". This was an important attempt for conducting collective dialogue and seeking common development. Africa is the second largest continent in the world with 54 countries and accounts for one third of all the developing world and more than one fourth of the total membership of the United Nations. Hence it plays an important role in the international political arena. Sino-Africa friendship has a long history. Both China and

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African countries share similar experiences and still face similar challenges in the global economy. They have always sympathized and supported each other especially in recent years. China is now playing the dual role as the sole balancing power to the US and as torchbearer for the Third World. Economically stronger than ever, carrying out a profound modernization of its military, successfully hosting the 2008 Olympic games and relishing its ascending international clout, China has redefined its geo-strategic vision, calling for multi-polarity and a new economic and political international order, and has re-engaged Africa at a scale never seen before. Throughout the 1990s China sought to strengthen its relations with individual African countries ranging from political, economic, trade and military, to cooperation on multilateral issues. An emphasis was clearly put on oil-producing countries and those with growing economies. Three primary interests have been driving China to Africa namely access to resources, access to markets, and pursuit of diplomatic allies on global issues. This paper examines the impact and implications which this renewed Sino-Africa economic relationship presents for Africa and China. It traces the evolution in Sino-Africa partnership discourse, examines the relation in the fields of energy, Agriculture, industrial, mining, education, trade and policy frame work of the unfolding relations and especially the Chinese FDI in Africa. The analysis of this paper points at key areas which require a delicate balance to be maintained for a sustainable economic cooperation between the two partners in the face of glaring western competitors in the midst of global challenges like climate change and the current global financial crisis.

Foreign direct investment (FDI) is usually defined as a transfer of package of resources across countries of the globe, which includes: capital, technology, management and marketing expertise (Odozi, 1995). As most developing countries experience a shortage of capital which is reflected in their savings gap to finance their investment needs. The only way to bridge this gap is through an inflow of foreign capital. In 2007, United Nations report (UNCTAD, 2007) points out that China is one of the major capital providers for developing countries in Africa. That means the economic linkage between China and Africa has been strengthened through China FDI in Africa during the past few years. Hence it is for this reason that this study is set out to investigate the effect of Chinese FDI on the bilateral trade. According to China's yearly statistics, Chinese trade and FDI in Africa has grown sharply over the last few years. In this study, we focus on the Sino- Africa economic and Chinese Foreign Direct Investment in Africa on Bilateral trade relations. To analyze the impact of Chinese FDI in Africa, we used panel data for twenty three Africa-countries (Table 1) in which China always invests every year so as to investigate the effect of China's FDI on its own export to those Africa-counties.

Furthermore, we used a time series data to look for the effect of China's FDI on its import from Africa.

Table 1. List of countries

S/N	Countries
1	Algeria
2	Angola
3	Benin
4	Botswana
5	Cameroon
6	Congo Demo.Rep
7	Congo Rep
8	Cote d'Ivoire
9	Egypt Arab Rep
10	Ethiopia
11	Gabon
12	Ghana
13	Kenya
14	Madagascar
15	Mauritius
16	Morocco
17	Namibia
18	Nigeria
19	South Africa
20	Sudan
21	Togo
22	Uganda
23	Zambia

HISTORICAL BACKGROUND AND DIPLOMATIC RELATIONS BETWEEN CHINA AND AFRICA

The foundation stone of China-Africa relations was laid at the Asia-African Conference (the Bandung Conference) held in Bandung, Indonesia from 18th-24th April, 1955. The stated goals of the Bandung conference were "to promote Afro-Asian economic and cultural cooperation and to oppose colonialism or neocolonialism by the United States, the Soviet Union, or any other imperialistic nation." The conference brought together, for the first time, 29 African and Asian nationalist leaders including Chou En Lai, premier of China by then. Significantly, Taiwan was not invited to the conference together with South Africa, Israel, South Korea, and North Korea. Most of the participants at the conference shared a history of colonization by Western States and a common desire to overcome the legacies of colonialism and forge closer ties with one another. Shortly after the conference, Chinese officials headed by Foreign Trade Minister, Yeh Chi-Chuang, and Vice-Ministers, Kiang Ming and Lu Hsu-chuang, embarked on trade missions to Africa. Between 1955 and 1965, trade between Africa and China increased nearly seven folds. Diplomatic relations also deepened during this period. The first Afro-Asia People's Solidarity Conference was held in Egypt in 1957. Between 1960 and 1965, China entered into relations

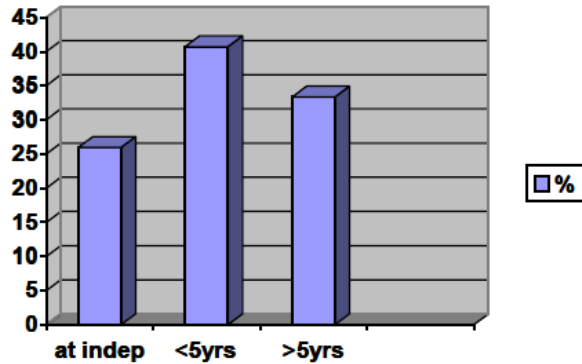


Figure 1. The percentage of African countries that established ties with China at independence, in less than 5 years of independence and over 5 years after independence before 1972.

with 14 newly independent states in Africa. Despite growing trade relations, China's interest in Africa during the 1950s and 1960s was ideological rather than economic. China's relationship with Africa took a nosedive during the Cultural Revolution in China. However, in the 1970s China "embarked on an extensive aid program to Africa." Between 1970 and 1976, China committed about US\$1,815 million to Africa. During this period China also sponsored several prestigious projects in Africa such as the TAZARA railway between Tanzania and Zambia. Africa was also of some help to China during this period. In particular, Africa was instrumental to China's success in gaining admission into the United Nations in 1971.

1960s showed a great deal of African independence coupled with Chinese-African interaction, with minor setbacks in this period. The first half of the decade was characterized by fast developing atmosphere in laying foundations for further ties. The recognition between China and the newly independent Africa countries served as leverage in their ties with majority of the African countries establishing ties with China at independence or within less than 5 years after independence (Figure 1 and Supplementary information).

This shows the zeal for China to establish friendly partnerships even at early stages of national programs. The relations of the decade began by exchanges and high level visits of leaders. The first Sub-Saharan African leader to visit China was President Sekou Toure of Guinea on September 14th, 1960. Since the founding of the People's Republic of China in 1949, Chinese leaders have attached high importance to developing relations with African countries. Jiang Zemin, Mao Zedong, Deng Xiaoping, Zhou Enlai to the present leaders has since been paying visits to Africa (Ian, 2006).

In the early 1960s Zhou Enlai made a ten-country tour between December 1963 and January 1964 to Africa. Relations at this time were often reflective of China's foreign policy in general. Premier Zhou En Lai vowed to

support African people in what he called "their struggle to oppose imperialism and old and new [forms of] colonialism and to win and safe guard national independence". In 1956, the United Arab Republic (Egypt), led by Garmal Abdel-Nasser became the first African state to recognize the PRC. The Cairo Conference of 1957 in many ways marked a turning point in China's policy regarding the developing world (Africa), which resulted in the creation of the Afro-Asian People's Solidarity Organization (Joseph, 2006). Up to the late 1970s, Taiwan, checkbook diplomacy and Africa's close relations with the West had weakened Beijing's presence on the continent. But during the course of the last two decades, as China's diplomatic and economic clout grew, many African countries gradually cut off ties with Taipei and normalized relations with Beijing. Taiwan's initiatives were not enough to counter China's growing clout in Africa. In 1998, South Africa, one of Taipei's most important partners in the continent, cut off its diplomatic ties with Taiwan (while maintaining economic cooperation) and reestablished links with China. Senegal followed suit in 2004 and Liberia in 2005. Recently in August 2006 and 2007 Chad and Malawi, respectively normalized diplomatic relations with Beijing, Currently only 3 of the 54 African nations uphold ties with Taipei (Gambia, Swaziland, and Burkina Faso).

In the last three years, Chinese leaders (World Viewpoints, 2007) have been visiting Africa to strengthen the bilateral cooperation in various sectors. The African leaders likewise have in one common voice welcomed the partnership. The Chinese leaders like the current Prime Minister Wen Jiabao have categorically stated that China has no selfish interests in Africa but for equality and mutual benefit. While key leaders in Africa like former president of South Africa Thabo Mbeki hailed the historical Sino-Africa cooperation as of comradeship and support (Li, 2006).

Sino- Africa trade and economic relations, social development Trade

China started buying cotton from Egypt since 1956. Today, China imports a wide range of commodities from Africa. These include oil, iron ore, cotton, diamonds, logs and several other minerals. African agricultural products which have suffered from the cruelty of globalization now find profitable markets in China. Burkina Faso, Benin and Mali provide China with 20 percent of its cotton imports. Ivory Coast and Ghana are important sources of cocoa and Kenya sells large quantities of coffee and tea to China. Namibia and Sierra Leone provide large shipments of fish and fishmeal. The figures about China-Africa trade illustrate the depth of this economic cooperation. This trade rose by 700% in the 1990s. In 1999, the trade volume stood at US \$6.5 billion. From 2002 to 2003, trade doubled to US \$18.5 billion. In 2005, it stood at US \$39.7 billion and again

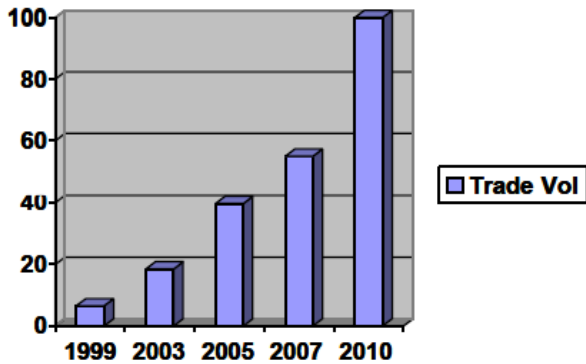


Figure 2. The historical and predicted trade volume between China and Africa.

jumped to US\$50 billion in 2006. A year later in 2007, it rose to US\$ 55 billion (Figure 2).

In February 2008, Chinese Premier Wen Jiabao optimistically predicted that Sino-African trade would reach US\$100 billion in 2010 removing China from its current third position into being Africa's first trading partner. This shows an exponential increase in the last ten years.

After ten years of continuous growth, China-Africa trade fell in 2009 due to the global financial crisis. However, by the year's end, trade has begun to recover as the decline gradually showed. During the first ten months of 2009, year on year monthly growth of trade was in negative territories. From November on, however, the trade volume began to increase compared to the same period of the previous year, and registered a 64.8 percent year-on-year growth on December. According to Sino-Africa trade and economic relationship, Annual Report 2010 this sharp increase resulted from a 16.2 percent growth in China's exports to Africa and 166.4 percent increase in its imports from Africa. As China-Africa trade relations are intensifying so are critical African voices that question the "real" nature of China's trade engagement opposing China's official discourse, which intends to present an alternative to the West. Trade Unions and business associations are increasingly calling for governmental intervention to limit and regulate the scope of China's dumping strategies, particularly with regard to textiles. Africa appears as the real loser in the global textile struggle, a view frequently portrayed in African and Western media reports, and illustrated in the drastic lay-offs of textile workers and the closing of manufacturing units throughout Sub-Saharan Africa. While the textile sector has been a major interest of media investigation, *entrepôt* states their trade communities have sparked less attention.

Oil

Oil has become a fundamental challenge for China, and at

the same time it has become an important issue in the relations with Africa. Before 1992, China steadily ranks sixth among the world's leading oil producers, but since 1993, the country has become a major importer of oil products. This is due to the country's rapid economic growth, with a steady growing number of vehicles. Trade in oil is therefore among China's priority areas in Africa. Projected to become the world's biggest oil importer soon after 2010, China seeks to expand its foothold in the African oil sector. The Beijing government has minimized its dependence on Middle East oil, which is politically unstable and has high content of sulphides, which requires special refining facilities unlike the oil from Africa (Sudan's oil) which has a low concentration of sulphides (Downs, 2006; Pan, 2007). As China continues to search for stable sources and also tries to acquire oil fields via direct investment, Africa has become its main target. China already has investment of Sudan, Chad, Nigeria, Angola, Algeria, Gabon, Equatorial Guinea and the Republic of Congo, Africa's frontline oil producers.

In Nigeria, Africa's largest exporter of crude, China National Offshore Oil Corporation (CNOOC) has paid US\$2.7 billion for the right to explore oil, China has a 45% share was expected to produce 225,000 b/d by the end of 2008, BP-operated Greater Plutonic project China Petroleum and Chemical Corporation (Sinopec) has a 50% stake which was to pump 200,000 barrel per day by 2007. In Angola, China Petrochemical Corporation (SINOPEC) gained a 50% stake in the BP operated Greater Plutonic project. In Sudan where China National Petroleum Corporation (CNPC) helped develop Sudanese oil fields (in the chaotic 1990s), China receives 60% of Sudan's oil output. In Somalia, CNOOC has signed a production sharing deal with the transnational government of Somalia, one of the world's most volatile countries (China's Oil Imports, 2006). Africa is one of the most promising regions of the world for future oil production, in Ghana oil exploration is presently going on and by 2010 Ghana will start to sell its oil to the outside world. IHS Energy projects West Africa will account for 38 percent of global oil production growth through 2010, more than any other region except the Middle East (International Energy Agency, 2007).

Minerals In the mineral sector, China stretches its hands very far into Africa. President Hu Jintao's inauguration of an African economic and Trade Zone during his Africa tour of 2007 is proof of China's emerging monopoly in the mineral trade in Africa (Li, 2007). The Chinese controlled Chambisi Copper Smelter in Zambia is at the heart of this economic zone and is a joint venture between China Nonferrous Metal Mining (CNMC) and Yunnan Copper Industry (YNCIG). China also lays claims on vast mineral resources in neighboring Zimbabwe where President Robert Mugabe, spited by the west, has passionately embraced a "look east policy" with inspiration from China. In Angola, China outbid Brazil in 2005 for the right to tap into iron ore

deposits. In the Democratic Republic of Congo, China struck a deal in 2006 with US\$ 8 billion dollars which gives China 68 percent stake in Grecamines. In the Ivory Coast, China exercises control over a manganese mine at Lozoua where it exports manganese to the Chinese market. In Gabon the state owned China National Machinery and equipment Import and Export Corporation struck a US\$ 3 billion deal to mine Iron ore in Belinga. In Mauritania, China's Transtech Industry (together with a Sudanese company) have invested more than US\$600 million in the construction of a railway line in exchange for an estimated 165m tons of phosphate used in the production of fertilizers(UNCTD, 2008) while China imports cobalt from the DR Congo, South Africa remains China's largest supplier of ore and manganese. In Sierra Leone where there are large deposits of diamonds and iron ore China is expected to take control of those minerals which are presently under the control of British and South African companies.

Education

To date, over 4,000 overseas students from nearly 50 African countries have graduated from Beijing Language and Culture University in the past 40 years. They undertake studies in various majors, including Chinese language, science, Arts and law.

China provides about 1, 200 government scholarships to African students every year. By the end of 2005, a total of 18,919 scholarships had been granted to students from 50 African countries, MOE figures show. China has also set up six non-profit Confucius Institutes in six African countries to teach Chinese language and culture. So far, through nearly 60 assistance programs, China has helped 25 African countries to develop neglected disciplines and train science and technological talents. China has also dispatched professional teachers to 35 African countries to assist them in developing higher and middle school education.

Tourism

Many African countries have witnessed a surge of Chinese tourists recently as more and more Chinese choose to visit the "magic" continent mostly during their seven-day National Day holiday that lasts from October 1st to 7th. The number of Chinese tourists to Africa reached 110,000 in 2005, doubling that in the previous year. African countries have already seen the huge potential in tourism therefore; governments and tour operators are seeking ways to penetrate into China's emerging tourist market. The number of Chinese visitors to Kenya, Zimbabwe, Angola, and a number of African countries has been on an upward trend in the last four years especially after China granted these countries the

Approved Destination Status for outbound Chinese tourist groups in 2004, this increase contributes positively towards the recovery of Africa's tourism sector and significantly to the growth of the economy.

The World Tourism Organization predicted that China is to be the world's largest tourist market by 2020. Currently there are 16 African states that have been granted the Approved Destination Status by China. Regional giant South Africa, which is one of the first African countries to get the status, has long been active in tapping into China's burgeoning travel market (Giles and Marcus, 2008). The number of Chinese tourists to South Africa has increased from over 10,000 in 2003 to more than 40,000 in 2005. South Africa has sent a series of tourism exhibitions to big cities in China, such as Beijing, Shanghai and Chengdu, as part of its aggressive tourism promotion campaign. South Africa' hosting of the 2010 Football World Cup in June and July is expected to be a key draw for Chinese tourists especially if their national teams qualifies in the run up (Erica, 2007). Tourism to South Africa is currently dominated by arrivals from Germany, UK and the United States, but heavy investments on promoting South Africa's tourism in China has led to solid growth in Chinese travelers. Since the two countries established diplomatic relations in 1998, South Africa has become China's top trading partner in Africa with a growing trade volume of US\$7.3 billion in 2005.

Agriculture

Agriculture is one of China's greatest concerns following its accession to the World Trade Organization (WTO). Many Chinese officials and farmers are investing in Africa when they were considering ways to cope with the challenges brought about by the WTO entry. Beginning in the 1960s, China initiated a large number of cooperative agricultural projects in the Republic of Congo, the Democratic Republic of Congo, Guinea, Mali, Mauritania, Niger, Sierra Leone, Somalia, Tanzania, Togo and Uganda. Most were initially aid projects, however, agriculture cooperation has continued up to the present time.

Aid

Besides trade in oil, minerals, agriculture and manufactured goods, aid is another key pillar in Sino-Africa economic cooperation. The most significant difference between China's aid to Africa and that of the west is that Beijing does not attach too many strings and "conditionalities" on its loan packages. Estimates put Chinese loans to Africa at US\$19 billion as of 2006. These loans despite western outcry on humanitarian grounds have been seen as positive instruments for

Africa's development. "What the Chinese are doing is taking a long term perspective of the ability to repay debts" says Donald Kaberuka, President of the African Development Bank.

CHINESE FOREIGN DIRECT INVESTMENT IN AFRICA (FDI) ON BILATERAL TRADE

China has changed ideology after adopting the open door policy in 1980. China-African relations based primary on ideological (peaceful coexistence, mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit) has changed to economic linkage and trade. From that, trade volume between China and Africa from 1990 to 2000 has increased sharply, from 1664 million in 1990; it reached 10597 million in 2000; about six fold.

Since the 1990s, the range of Chinese investment in Africa has broadened significantly. It has evolved from a few sectors such as resource development, including oil, agriculture and fishing to other areas such as textiles, consumer electronics, tourism telecommunications and road construction. By the end of 2006, the accumulated amount of Chinese investment in Africa totaled US\$11.7 billion. In 2005, the total Chinese Direct investment in Africa was US\$ 400 million, constituting 1.3% of total inflow of direct investment in Africa in that year. This investment driven by China's booming economy is having a significant impact on Africa's economic growth. There are currently between 800 and 900 Chinese enterprises doing business in Africa. The pressures of globalization and liberalization have also forced many African countries to open up to the outside world, thus embracing "easy-coming" investment from Chinese companies. A bulk of these companies are privately owned many of them are involved in building schools and hospitals for the local people where they have their investment, and they also pay attention to the localization of labor to hire local laborers (Li,2005).

The physical impact of China's investment is seen in the transformation of the African landscape through infrastructural development and technology transfer. Among these achievements are the Chinese constructed TAZARA railway line in Southern Africa, a hydroelectric dam in Ghana and a mobile phone network in Ethiopia. China helped Nigeria in launching its satellite into space in 2007, one of the rare technological successes in Sub-Sahara Africa. These gigantic achievements add to the list of roads, railways, bridges, dams, hospitals, airports, schools, stadia and legislative building constructed by Chinese engineers. In this part we are to find out the impact of the Chinese FDI in Africa-China bilateral trade relations.

METHODOLOGY

We present the method that enabled us to examine in this section

the effect of Chinese FDI on the Sino-Africa bilateral trade for the period 2003 to 2009. The research employed panel model to investigate the effect of Chinese FDI on Chinese Export to Africa and time series model to examine the impact of Chinese FDI on Chinese import from Africa. In the panel model, Chinese export to African countries is considered as dependent variable. China's FDI in each of the host country and some macroeconomic indicators of the host countries [per capita income, annual percentage growth rate of gross domestic product (GDP), real exchange rate between RMB and local currencies, annual inflation rate of consumer price, credit available to domestic sector as percentage of GDP and military expenditure] are taken as independent variables. However, using the time series model, total value of Chinese Import from Africa is considered as dependent variable and total value of China's FDI in Africa, China's per capita income, China's annual growth rate of GDP are taken as independent variables. Our primary objective in this study is to investigate whether Chinese FDI in Africa is for resource seeking motive as well as for market seeking behavior.

Theoretical assumptions

To achieve the objective that Chinese FDI in Africa, per capita income, annual growth rate of GDP and credit available to domestic sector in each of the host country are expected to have positive effect on China's export to Africa. The positive effect of Chinese FDI on bilateral trade is supported in the literature by Buckley et al. (2002), Sun (1999), Zhang and Song (2000) and Jinping and Wenjun (2008). Based on the similar consideration, real exchange rate and military expenditure are expected to have a negative effect on China's export to those Africa - countries. The real appreciation of Chinese RMB means the rise of the relative price in China to those of Africa - countries; this will negatively affect China's export to those countries. A large proportion of the budget reserved for defense expenditures may imply future uncertainty which means the country is politically unstable; this will have a negative effect on Chinese exports to that country. Finally, inflation in those Africa countries will have a positive effect on China's export to those countries because domestic product will become expensive, hence, will be forced to purchase (import) foreign goods. Also, Chinese FDI in Africa, Chinese per capita income and annual growth rate of Chinese GDP are expected to have positive effect on China's import from Africa. Thus, a high level of both Chinese per capita income and annual growth rate of GDP will positively affect Chinese import from Africa.

Model specification

Panel model

The empirical model for explaining Chinese export to Africa is as follows:

$$\ln(EX_{it}) = B_0 + B_1 \ln(FDI_{it}) + B_2 (PGDP_{it}) + B_3 (GROW_{it}) + B_4 (REXCH_{it}) + B_5 (INF_{it}) + B_6 (CRED_{it}) + B_7 (ME_{it}) + U_{it}$$

Where EX = Chinese export to each country; PGDP = real per capita GDP (current per capita GDP divide by GDP deflator); GROW = annual percentage growth of GDP in the country; REXCH = real exchange rate (obtained by multiplying the nominal exchange rate with China's Consumer Price index and then divided by domestic consumer price index); except of Congo Democratic Republic that we used China GDP deflator and Congo Democratic Republic GDP deflator, because of lack of

Table 2. Parameter for estimating panel model (random effect) by using Stata 10.

Variables	(1) Lex	(2) Lex	(3) Lex	(4) Lex
Lfdi	0.119*** (0.0161)	0.0647*** (0.0137)	0.0676*** (0.0139)	0.0665*** (0.0138)
Pgdp		0.000644*** (6.73e-05)	0.000631*** (6.80e-05)	0.000572*** (7.68e-05)
Rexch			-0.000393 (0.000319)	-0.000367 (0.000317)
Grow				0.00630 (0.0142)
Inf				0.00373 (0.00540)
Cred				0.0110 (0.00760)
Me				-0.130** (0.0617)
Constant	18.07*** (0.249)	17.65*** (0.197)	17.64*** (0.197)	17.65*** (0.320)
Observations	157	157	157	157
R-squared	0.292	0.582	0.587	0.608
Number of country	23	23	23	23

Standard errors in parentheses. *** p<0.01; **, p<0.05; *, p<0.1.

Table 3. Estimated results (from Panel model) of the Impact of Chinese FDI in Africa on the value of Chinese export to Africa after controlling heteroskedasticity

Variables	(1) Lex	(2) Lex	(3) Lex	(4) Lex
Lfdi	0.119*** (0.0231)	0.0647*** (0.0169)	0.0676*** (0.0171)	0.0665*** (0.0176)
Pgdp		0.000644*** (6.61e-05)	0.000631*** (6.64e-05)	0.000572*** (8.36e-05)
Rexch			-0.000393 (0.000253)	-0.000367 (0.000246)
Grow				0.00630 (0.0144)
Inf				0.00373 (0.00591)
Cred				0.0110 (0.00751)
Me				-0.130** (0.0602)
Constant	18.07*** (0.360)	17.65*** (0.223)	17.64*** (0.226)	17.65*** (0.345)
Observations	157	157	157	157
R-squared	0.853	0.913	0.914	0.919

Robust standard errors in parentheses. *** p<0.01; **, p<0.05; *, p<0.1.

Congo Democratic Republic consumer price index; INF = inflation, consumer price (as an annual percentage), in the country; CRED = Credit facilities available to domestic sector as a percentage of GDP, in the country; ME = Military expenditures as percentage of GDP in the country.

Time series model

The empirical model for explaining Chinese imports from Africa is specified as:

$$\ln(\text{TIM } t) = B_0 + B_1 \ln(\text{TFDI } t) + B_2 (\text{GROW } t) + B_3 (\text{PGDP } t) + U_t$$

Where TIM = Total value of Chinese import from Africa every year; TFDI = Total value of Chinese investment in Africa every year; GROW = annual percentage growth rate of GDP in China; PGDP = real per capita GDP in China (current per capita GDP divide by GDP deflator).

Data and sources

Annual data series was used for the period 2003 to 2009. The data

sets related to Chinese exports and Chinese imports are obtained from Statistical Yearbook; Chinese FDI in Africa is obtained from www.fdi.gov.cn. Nominal exchange rate is obtained from UNCTAD data base. Per capita GDP, annual percentage growth rate of GDP, inflation rate, credit to domestic investor (CRED) and military expenditure are obtained from WDI (2010). A sample of twenty three (23) African countries was selected, for which data on most of the variables were available for this study. Estimated results for the impact of Chinese direct investment in Africa on the value of Chinese export to Africa are presented in Table 2. Table 3 presents once again the impact of Chinese direct investment in Africa on the value of Chinese export to Africa after controlling for heteroskedasticity. Table 4 presents the impact of Chinese direct investment in Africa on the value of Chinese imports from Africa.

EMPIRICAL RESULTS AND INTERPRETATION OF CHINESE FDI IN AFRICA ON BILATERAL TRADE

The variables FDI and PGDP are positively as expected and statistically significant at 1% level; it implies that FDI has a big impact on Chinese export to Africa. A particular

Table 4. Parameter estimated from time series data (with robust) by using Stata 10.

Variables	(1) Ltim	(2) Ltim	(3) Ltim
Ltfdi	0.458*** (0.0501)	0.372*** (0.0746)	0.322** (0.0562)
Pgdp		0.000150* (5.96e-05)	0.000234** (5.63e-05)
Grow			0.0523 (0.0444)
Constant	14.66*** (1.008)	16.06*** (1.411)	16.32*** (1.139)
Observations	7	7	7
R-squared	0.938	0.953	0.970

Robust standard errors in parentheses. ***, $p < 0.01$; **, $p < 0.05$; *, $p < 0.1$.

Table 5. Test for Heteroskedasticity.

Variables	Résidu Square
Lfdi	-0.00599 (0.00529)
Rpgdp	-2.16e-05** (1.03e-05)
Rexch	-6.83e-05 (0.000136)
Grow	-0.00629 (0.00527)
Inf	-0.000121 (0.00190)
Cred	-0.000715 (0.000658)
Me	-0.0328** (0.0156)
Constant	0.420*** (0.0897)
Observations	157
R-squared	0.107

Standard errors in parentheses. ***, $p < 0.01$; **, $p < 0.05$; *, $p < 0.1$.

interest is the coefficient of the FDI, as this indicates the elasticity of export with respect to outward FDI. From Equations 1 to 4, the coefficient of FDI variable is positive and statistically significant at 1% level, confirming the contribution of Chinese FDI to Chinese export to Africa during the period under study. The result show that a 1% increase in FDI leads to a 0.07% increase in export. This finding is consistent with our hypothesis that Chinese direct investment in Africa is for market seeking behaviour. The variable military expenditure is statistically significant at 5% level. The variables, real exchange rate, annual growth rate; inflation rate and credit to domestic investors are not statistically significant. Although insignificant, these variables have the correct signs in relation to Chinese export to Africa.

We have tested whether there is heteroskedasticity, and we found evidence of heteroskedasticity in Table 5 ($n^*R^2 = 16.8304 > 14.07$). To correct that, we have used command areg with robust option and we got the output. Since we are using time series data for estimating the impact of Chinese foreign direct investment in Africa on its import from Africa, the estimation methodology is very crucial. The major concern with the time series is that if non-stationary of data series persists then it may lead to spurious relationship. In order to avoid spurious regression, we have checked for unit roots (Table 6) for

the variable using Augmented dickey fuller (ADF) and we have found that variable log import is stationary but log FDI, real income per capita and annual percentage growth of GDP are not stationary but have different level of integration so no risk of cointegration which might lead to spurious regression. The empirical results for the effect of Chinese direct investment in Africa on Chinese imports from Africa is in Table 3. The coefficient of FDI is positive and statistically significant at 5% level in Equation 3, 1% level in both Equations 1 and 2. This finding confirms our hypothesis that Chinese direct investment in Africa is for resource seeking motive. An increase of 1% of Chinese direct investment in Africa leads to 0.32% increase in Chinese imports from Africa.

The variable per capita income is also statistically significant at 5% level. Annual growth rate of GDP is not statistically significant but it has the correct sign. This implies that China has been importing raw material from Africa with a view to sustain its economic growth. By using robust option for time series regression, stata 10 control automatically for the heteroskedacity problem, so we have just tested whether there is evidence of autocorrelation of the error term by using command durbina and the test give us a p-value equal to 0.6741, with null hypothesis of no serial correlation. As p-value is higher than 10%, there is no evidence of autocorrelation.

IMPLICATIONS AND PROBLEMS IN THE SINO-AFRICA RELATIONS

Africa has been greatly transformed by China's growing presence on the continent, at the same time conflict has also surfaced with expanding interaction, particularly with labor practices and market strategies, competing commercial and national interests, China is blamed for flooding African markets, destabilizing local economies and selling goods of inferior quality to Africans. With Chinese businesses and manufactured goods flowing into Africa, conflict over differing labor practices and market strategies has arisen between Chinese and African enterprises. Chinese entrepreneurs rarely employ local workers in Africa. Rather they are accustomed to bringing laborers from China and most

Table 6. Test for unit root by using Augmented dickey fuller (ADF).

Variable	Test statistic	Critical value at 5%	P-value
Logarithm of total import (Itim)	7.908	3.6	0
Logarithm of total FDI (Itfdi)	0.785	3	0.8236
Real per capita income (rpgdp)	1.206	3	0.996
Annual percentage growth (grow)	2.032	3	0.2729

management positions are filled by Chinese nationals. Chinese company practices also lead to discontent among the communities in which these enterprises operate, who perceive that Chinese companies are not contributing enough to local economies and employment. Another source of conflict arises from the success of Chinese goods in African markets, which are often better quality and cheaper than local products. While African consumers are happy, parallel domestic industries (especially textile industries) suffer as a result. And as these relationships grow and the institutional tendrils become more enmeshed we see possible problems of African people, in western fears, being locked into China for many years to come but equally the Chinese are 'locked' into Africa, which brings its own risks.

The West also frets about China's closeness with oil and mineral rich countries in Africa and its military connections with these states. Chinese infrastructure projects in the continent are also predicted to end up as white elephant projects.

Thabo Mbeki, former president of South Africa who was one of the leading figures in African diplomacy was one of the many Africans to raise concerns about unguided optimism in Sino-African relations. He is considered as the most prominent case of African "push-back" when it comes to dealing with China, especially in the area of trade. As proof of his determination to restrain China's unbridled trade advances, Mbeki's government imposed quotas for Chinese textiles in an effort to revive and protect South Africa's staggering garment industry which is threatened by cheap Chinese textiles. Mbeki's move was a warning signal to China, and a lesson for the rest of Africa about cheap Chinese textiles, and a lesson for the rest of Africa on how to deal with the "new guest." Mr. Mbeki had earlier warned that African states run the risk of getting stuck in "an unequal relationship" with China. Elsewhere in the continent African leaders are caught between embracing a newcomer and retaining traditional alliances. Nigeria, one of America's biggest oil suppliers in Africa is moving towards China with a lot of caution. Nigeria has made it clear that China will have to face competition from western energy companies and also national companies from India, South Korea and Malaysia. Despite China's overtures her citizens have been caught up in the spade of kidnappings that characterize the volatile Niger Delta region. Ethiopian

rebels also killed nine Chinese oil workers in the Ogaden region in April 2007. Another emerging phenomenon which has the possibility of intensifying the existing crack in Sino-African relations is the problem of migration. Population movements between China and Africa have increased steadily since the 1990s. While the estimated 900 thousand Chinese migrant workers in Africa invade jobs ranging from agriculture through street peddling to industry, it is a different situation for Africans in China. These Africans who live under the constant fear of deportation are subjected to color prejudice in the job market where teaching is their only option. To secure these jobs and keep them, are the twin challenges facing African migrant workers in a society where "native speakers" are preferred irrespective of academic or professional qualifications. Obtaining and or renewing work visas for Africans is the mother of all problems, besides discriminatory salaries they receive on basis of their color. For many of these educated Africans, driven from home by harsh poverty and uncertainty and wandering in a wilderness of thorny discrimination, Sino-African cooperate remains a farce.

Conclusion

To conclude we want to open up a series of broader issues around the longer term implications of Whether China's involvement will enhance development prospects and political accountability in Africa or undermine them. All agree that China is in Africa to stay and so monitoring the unfolding of these relationships is an obvious conclusion from this paper. Given huge and growing urban-rural inequality, debate is emerging around whether China can continue to fund aid and investment at current levels, when pressures are coming for domestic redistribution rather than international aid (Naidu, 2007). We suggested that China's involvement will not fundamentally alter Africa's place in the global division of labor. It simply adds a new and significant market without challenging the continent's extraversion. In some states this will entrench renter states, concentrate ownership in a few hands, and deliver limited multipliers to marginalized Africans. The more upbeat take amongst policymakers (Wild and Mephan, 2006) is that if Africans can 'control' the benefits of Chinese involvement then Africa will benefit. This requires strengthening civil society

(Obiorah, 2007) and opening up development to democratic debate to see how redistribution might work. Chinese demand for oil has outpaced the increase in domestic production, forcing Beijing to look abroad for energy supplies. Africa's contributions to China's imports have grown considerably and for several reasons. Chinese refineries can process African oil more cheaply than supplies from the Middle East. Experts predict that a substantial portion of future oil discoveries will occur in Africa. Most importantly, it is easier for Chinese NCOs to compete with western oil firms in African nations. China's no strings attached approach to business gives its oil firms an advantage.

The tussle between the two rival blocs in Africa reached climax when the World Bank which has exercised unrivalled, albeit counter-productive control over Africa before the coming of China, started calling for the latter to be more transparent about its African plan. Former South African President Nelson Mandela reminded African leaders of the need to pick their friends with utmost care as this might prove to be a decisive moment for Africa. "Africa is beyond bemoaning the past," Mandela said. "The task of undoing that past is on the shoulders of African leaders themselves, with the support of those willing to join in a continental renewal. We have a new generation of leaders who know that Africa must take responsibility for its own destiny, that Africa will uplift itself only by its own efforts partnership with those who wish it well." China did not only penetrate African market by conquering its actors and consolidating long-term diplomatic relations, but it also benefited from Africa's poverty for it could give people with a limited purchasing power low-cost products that no Western economy may have profitably commercialized. For this reason, most African communities consider China's intervention, paradoxically, as the best recipe for their development a part from a few exceptions such as, for instance, the Congo Liberation Movement, that rebelled against the agreements its government was stipulating with Beijing just because of the dependence they were about to generate. China's action in Africa can hardly be limited today, since there is no other great power that could balance or slow-down its rise. Besides, as the International Monetary Fund stated, China is doing in Africa what no other organization could do in terms of infrastructure and services. The price Africa has to pay, however, is extremely high and it will further increase if Chinese imperialistic expansion is not accompanied by local development, respect for human rights and the environment, a better consideration of African communities' real needs. Regarding the Chinese FDI in Africa, the study found that Chinese FDI in Africa has a substantial impact on Chinese imports from Africa than Chinese export to Africa. An increase of 1% FDI lead to an increase of 0.32% of Chinese import from Africa and 0.07% of Chinese export to Africa. The study indicates that the Chinese government FDI policies have been very

successful in sustaining Chinese economic growth. While the main question is how can Africa-countries benefit from Chinese FDI inflow? Government of the host country should adopt the following appropriate policy that we offer; policy which might contribute to human capital training and facilitate international exchange integration; create a conducive investment climate that will promote competition between domestic and foreign (Chinese) companies which will enhance economic growth and development; the government of the host countries can lower the tax so as to encourage Chinese potential investors to establish their companies in those host countries.

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Conflict of Interests

The author has not declared any conflict of interests.

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Full Length Research Paper

Reflections on Islamic marriage as panacea to the problems of HIV and AIDS

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Heterosexual intercourse is epidemiologically the leading factor in the spread of HIV/AIDS. Although the heterogeneous Muslims condemn condom use as leading to *zina*, the Muslim majority regions of North Africa and the Middle East have the lowest HIV prevalence in the world. Through the desk-top approach the paper evaluated Islamic marriage as a possible panacea to the problems of HIV/AIDS. The correlation between religion and the spread of HIV/AIDS has remained ambiguous, for while both Christians and Muslims advanced the same moral values, HIV prevalence peaked among majority adult Christian populations and drastically dropped among majority Muslim populations. This means the Islamic marriage praxis includes some unique features. Such features include obligatory pre-marital circumcision, strict separation of sexes, combined religious, judiciary and political sanction against pre-marital sex, extra-marital sex and compulsory levirate marriage. The unique marriage sanctions are gradually restricting freedoms in the areas of polygyny and divorce; slowly restricting multiple sexual contacts which are epidemiologically prone to HIV/AIDS. Hypothetically, Islamic marriage can impact favorably on HIV/AIDS prevalence.

Key words: Abstinence, fidelity, HIV/AIDS, panacea, *zawj*.

INTRODUCTION

This paper focuses on Islamic marriage principles from within the Islamic Family Laws. By principles the paper refers to accepted rules governing Muslim behaviour in respect of marriage. These principles define morally correct behaviour and attitudes (OALD). The Islamic Family Laws regulate private family life, and this research concentrates on those family laws that deal with marriage preparations and the various types of Islamic marriage. The paper further discusses the HIV/AIDS drivers and their correlation with religious laws. Finally it makes a hypothetical proposition on the possible impacts Islamic

marriage might have over the HIV/AIDS scourge.

METHODOLOGY

The study relies on the desk-top approach. This means the argument is created out of a body of knowledge already in the public domain. Such knowledge is accessed from books, journals, the internet, news papers and governments and international organisations policy documents. First the article focuses on the Islamic marriage from which the author draws Islamic marriage against the HIV/AIDS drivers. This being done the focus shifts to

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factors fuelling the spread of HIV/AIDS and the Islamic response to such a discourse with special attention to the preventive principles within marriage. The Islamic response leads to the phenomenological evaluation of Islamic marriage as a possible panacea to the problems of HIV/AIDS; a religious alternative or backup to a consortium of remedies proposed by the secular society.

Background to Islamic marriage principles

The Quran uses the term *zawj* (paring) for marriage, maintaining that it is a solemn covenant (Surah 4:21) "to which God Himself is the first Witness and the First Party" (Abdalati 1986, p.202; *Islamic Dictionary 2015*). The legal term for marriage, *nikah*, literally means 'sexual intercourse' (TISM1). This etymology for marriage denotes it as the only conjugal community and the sole legal framework for procreation (Surah, 4:1). It is treated as a natural instinct from Allah meant to prevent fornication and its fulfillment is figuratively valued as equivalent to fulfilling half of one's religious obligations (Surah, 17:22), making marriage a religious duty and a moral safeguard. Nevertheless, legally Islamic marriage is not free for all. Muslims insist on the 'responsibilities law,' which excludes from marriage the impotent, those who have no love for children and those who lack financial ability to run a decent family (Esposito, 2001; Olsen, 2009).

Islamic marriage is parentally arranged due to strict family regulations on the separation of sexes enforced by a highly empowered male guardian. For that reason the suitor and the bride only come to meet each other in an arranged meeting and to know each other in wedlock. If the suitor and his betrothed are found together alone they are subject to heavy punishment which may be a hundred lashes (Doi, 1984). For a marriage to be legal it must be public, which is meant to prevent immorality and to create a distinction between marriage and prostitution. The bridegroom undertakes to pay *mahr/sadak* (dowry) exclusively to the bride, who forever must conduct herself decently (Schacht, 1986; Esposito, 2001; Olsen, 2009).

Islamic marriage laws allow polygyny. Muslim men are allowed to marry up to four wives since the Battle of Uhud (625 CE) (in which a lot of Muslim men lost their lives) in order to provide for numerous widows and female orphans in a strictly patriarchal society (Esposito, 2001; Ephroz, 2003; Olsen, 2009). Some Muslims still maintain that "the event may be past but principles remain" (Ali, 1989, note 508). Modernists argue that Surah 4:3 often quoted as allowing four wives is virtually a prohibition by modern exegesis as it puts impossible conditions for polygyny. In modern hermeneutics polygyny is not a principle in Islamic law and therefore not obligatory (Doi, 1984; PCN, 2007; Noebel, 2006). On the political front, Tunisia prohibited polygyny in 1957. The Malaysian Islamic Family Laws Act (1984) specifies that a couple needs written permission from the Syariah Court to contract polygyny. In Syria and Morocco restrictions have been imposed on polygyny based on the 1986 Arab Family Law Project. In these countries polygyny is regulated by government codes administered by the courts which verify the need and level of impartiality (Doi, 1984; PCN, 2007; Olsen, 2009). In that light polygyny has entered a new phase in which its gradual constriction may be postulated.

Islamic marriage among some religious sects still tolerates *mutah* (temporary marriage). The argument is, if a man is out on business it is better to have a constant rather than multiple partners out there (Surah, 4:24). The 'men on business' include merchants, soldiers, students and tourists. Who should the 'men on business' consider for *mutah*? "A woman whose life had(s) fallen into difficulties" (Mujtaba and Lari, 1977, p.108). Marginalization, poverty and vulnerability are considered key drivers for multiple/occasional partnerships and prostitution (Kramer and Berg 2003; Hughes 2004).

Islamic marriage is not indissoluble. Though adultery may lead to divorce it may also lead to death by stoning. If a man divorces his wife he is not allowed to reconcile with her again until she has married another man and has been divorced by him after consummation of the marriage (Roberts, 1971). Modern Muslims however have found a way round it by contracting fake marriages which are only consummated in principle. Such marriages though innovation, are recognized as valid. A woman can be granted divorce in the cases of the husband's continued absenteeism, or chronic illnesses such as leprosy, elephantiasis, lunacy and impotence. The Shariah makes health partners choose to care for the sick (Mujtaba and Lari, 1977; Olsen, 2009). Only competent courts can dissolve marriages in Tunisia, Iraq, Kuwait, Libya, Malaysia, Morocco and Yemen (Doi, 1984; Olsen, 2009). Court interventions make it possible to hypothesize that divorce among Muslims, which has a great potential for increasing lifetime partners, may gradually become difficult (Stanberry and Bernstein, 2000).

Levirate marriage is also permissible among Muslims. In the pre-Islamic era a step son or brother inherited the deceased's widow and property even against her will. Compulsory inheritance is now punishable (Ali, 1989). The Quran gives the widow and the divorced the right to dispose themselves in marriage (Surah, 2:232, 240). This means that the levirate marriage can now only be by mutual consent.

Islamic marriage principles

The foregoing discussion has stressed the following points:

1. Marriage as the only conjugal and legal framework for procreation (Surah, 4:1; Abdalati, 1986; TISM1).
2. Strict separation of sexes to stomp out fornication or adultery (Surah, 17.22; Schacht, 1986; Esposito, 2001; Olsen, 2009).
3. Heavy penalties for fornication and adultery as deterrent to sexual license (Doi, 1984).
4. The excessive powers of the male guardian to make minors respect the sex boundaries (Schacht, 1986).
5. Only those able to meet the marriage responsibilities should marry (Schacht, 1986; Esposito, 2001; Olsen, 2009).
6. Marriage publicity and registration for authenticity, respect and stability (Olsen, 2009).
7. Compulsory *mahr* payment for wife empowerment (Schacht, 1986; Esposito, 2001).
8. Conditional caring for the chronically ill (Mujtaba and Lari, 1977; Olsen, 2009).
9. Circumcision prerequisite for every man before marriage (BBC, 2009).
10. Strictly formal Islamic dress code (decency) (Doi, 1984; Schacht, 1986).
11. Empowerment of the widow/ divorced to choose who she wants to marry/ demand inheritance from parent or husband's deceased estate. (Ali, 1989).

These legal positions are meant to uphold the principles of pre-marital sexual abstinence, fidelity in marriage, good hygiene (circumcision), responsibility, gradual female empowerment and the preeminence of the law.

HIV/AIDS

The abbreviation HIV stands for human immunodeficiency virus, the precursor for AIDS. The acronym AIDS in turn stands acquired immunity deficiency syndrome. HIV is spread through sexual contact as well as exchange of body fluids (semen, vaginal secretion, anal fluids, blood) and it is only called AIDS when the body immunity system becomes susceptible to some opportunistic

diseases like pneumonia, meningitis and tuberculosis (MSF, 2013). The spread of HIV through unprotected sexual intercourse with an infected partner is exacerbated by multiple concurrent sexual partnerships, migration and gender inequalities (Genrich and Brathwaite, 2005; NAC, 2014). Apart from heterosexuality and homosexuality, drug misuse leads to the sharing of contaminated needles (Hasnain, 2005).

Muslims' response to the HIV/AIDS discourse

Early discussions about HIV/AIDS in the Muslim world described the condition as belonging to the American and European gays and foreign to the conservative Muslim. The Shariah Law severely condemns gay relations based on the Quranic story of Lut, leading to the stigmatization and discrimination of gays and lesbians (Bocci, 2013). Severity of stigma breeds withdrawal and submergence of activities and possibly limits flourishing of the practice; though such withdrawal may lead to perpetuation of conditions that may be moderated or reversed by exposure and cure (Bocci, 2013; NAC, 2013). Although Islamic response to the Shariah Law on gayism is not homogenous, the Muslims are convinced that the open practice in the USA and Europe encourages prevalence (Bocci, 2013). The heterogeneous cover of the Muslim communities is slowly beginning to reveal small exoteric gay-communities susceptible to the virus in a very small but sure way.

One essential debate among the Muslims is based on the use of the condom by the sex workers (Bocci, 2013). Culturally and religiously the condom has a moral challenge that easy accessibility might lead to *zina* (promiscuity) (Genrich and Brathwaite, 2005; Bocci, 2013; Makamure, 2015) condemned both by the Quran and the Shariah. The challenge lies in whether a sane infected adult should ignore personal condition and go ahead to engage in open sex with an HIV free individual. Analogical deduction says 'no,' because the Shariah Law maintains that when confronted by two evils, a Muslim should choose the lesser evil. Tacitly this is an approval for the unpronounced condom use and Zanzibar and Iran have been forthcoming on the issue (Rafiq, 2009; Speakman, 2012). Among the heterosexual couples there is only a 4% chance that HIV positive people adhering to anti-retroviral (ARV) drugs are likely to infect their partners through unprotected sex (NAC, 2014).

In general Muslims saw condom use as ineffective and bodily supported abstinence as the panacea to the problems of HIV and STDs. They believed in the sanctity of marriage contracted according to the religious law of the Islamic faith: *Shariah*. Compact societies, as in the case of the majority of Muslim communities, and religious influence moderate the spread of HIV (Genrich and Brathwaite, 2005; cf Meekers, 1993).

In Muslim countries HIV/AIDS is prevalent among groupings which act contrary to Islamic teaching; the drug injecting groups, the female sex workers and the men having sex with men (Kamarulzaman, 2013). Of the 15.9 million drug injecting people in the world some in excess of 3 million are known to be living with HIV and AIDS. Resistance to syringe and needle disposal and condom distribution has been partly affected by fear to tacitly advocate for the prosperity of these social and religious misfits. Adherence to Islamic marriage principles including pre-marriage circumcision are thought to account for the low rate of HIV infection among the traditional Muslims in the Middle East and Sub-Saharan Africa. Circumcision reduces new infections by at least 50% (NAC, 2013). Such protective effect is enhanced by the use of the condom (NAC, 2013).

Studies have confirmed that HIV prevalence is low in Muslim majority countries (Rafiq, 2009). HIV/AIDS continue to suffer from moral and religious stigma, but Zanzibar has departed from the norm among Muslim majority communities by accepting condom use in the prevention of HIV/AIDS as all efforts to prevent the influx of foreigners and the quarantine of the infected proved impractical.

Men who travel often are more prone than women to come into contact with people with the disease first, as multiple sexual contacts outside marriage in line with *mutah* (temporary marriage/small house) increase the chances of becoming HIV positive (Genrich and Brathwaite, 2005; Rafiq, 2009; NAC, 2014). But Muslim women are more vulnerable than men because of their lack of sexual and economic bargaining power, which increases the risk of acquiring AIDS (Rafiq, 2009; NAC, 2014). In the Tanzanian communities, circumcision, anti-alcoholism and frequent ablutions are associated with seropositivity.

Hasnain (2005) argues that great emphasis is placed on abstinence and proper use of drug as policy drivers in Muslim majority countries. The disease is easily avoidable through behavioural changes and personal choices. Life style is therefore very important in forestalling HIV/AIDS. The current incidence in the Eastern Mediterranean is 0.3% which is equivalent to Western Europe. Muslims emphasize chaste behaviour and prohibit sexual behaviour outside marriage. Islam prohibits adultery, homosexuality and use of intoxicants, though brothels do exist in some Muslim countries making commercial sex and extra marital sex possible outside the permissible behaviour. Muslim policy makers continue to advocate abstinence from all these risky behaviours. Interestingly, in the Muslim World, religion defines culture and culture gives meaning to every aspect of an individual's life (Hasnain, 2005).

RESULTS

Research has shown that HIV/AIDS is mainly spread through risky behaviours which include sex with multiple partners outside wedlock, or allowed degrees of marriage, such as prostitution and gayism. Literature shows that initial discussions located the condition within the American and European gay fraternity, which almost created complacency among other groups of people. Results of surveys have also shown that the incidences of HIV in the majority Muslim areas of North Africa and the Middle East are 0.15% and 0.3% respectively, which lie in the range of Western Europe. Muslims whose lives are ruled by the religious Shariah Law generally stigmatize those affected by the condition as sinners who have failed the chaste and abstinence tests and therefore destined for Hell. This sentiment is particularly strong because Islam prohibits adultery, homosexuality, use of intoxicants and commercial sex which lie outside the permissible behaviour. In this case the condition is rife among social deviants.

DISCUSSION

The foregoing has shown that sexual behaviour is the key driver of HIV/AIDS. The low incidence of HIV/AIDS among majority Muslim communities may prove that their marriage principles work. Of interest is their insistence on marriage as the only legal sexual framework and procreation as the purpose for the conjugal community (Surah, 4:1). The strict separation of sexes stands as a social construct which enforces abstinence from fornication or adultery. This is particularly possible because the penalties are dear (Doi, 1984). Heavy

penalties have been used as deterrence from time immemorial. The Semitic people have made use of heavy penalties to control sexual behaviour (John 8; *Judaica*, 2008) while the Romans and the French have used them to stamp out opposition (*Britanica*, 2015). The Responsibilities Law reduces the chances of the wife committing adultery to fend for the family in the case of a financially incapacitated husband being allowed to marry. An impotent man would force the wife to secretly experiment with other men to save herself from the shame of childlessness. Continued absenteeism with its financial deprivation in a patriarchal society would have forced the woman into infidelity if she was not freed to join a responsible man of her choice (Schacht, 1986; Kramer and Berg 2003; Hughes 2004; Olsen, 2009).

Taking marriage as a moral safeguard against sexual temptations (Surah, 17:22) has the capacity to deal a blow against the scandalous behaviour exuded by some monks and non-marrying pastors. Marriage publicity has the positive value of authenticating a union and excluding illicit behaviour common in secret marriages (Schillebeeckx, 1978; Schacht, 1986). Secret marriages have problems of instability and replication which is prone to contracting HIV/AIDS which has high incidence among those who change their partners frequently (Genrich and Brathwaite, 2005; Rafiq, 2009; NAC, 2014). Marriage stability on the other hand has the greater value of avoiding multiple contacts.

Although Islam emphasizes compassion it exempts spouses from fundamentalist compassion. Conditional caring for the chronically ill gives an outlet for women whose husbands may have contracted diseases outside wedlock to recue themselves and stay free of the disease (Abdalati, 1986). The foregoing has shown that it is the men who are more prone to come into contact with the disease first because they may contract *mutah* when away from their spouses (Genrich and Brathwaite, 2005; Rafiq, 2009; NAC, 2014).

Circumcision as a prerequisite for every man before marriage has demonstrated some degree of resistance to the HIV/AIDS scourge. The government of Zimbabwe in 2010 rolled out a policy to have all active men voluntarily circumcised as a way of fighting HIV/AIDS. It is argued that circumcision reduces new adult infections by between 40% and 50% (USAID, 2009; NAC, 2014). Other publications show that it is up to 60% effective in some cases (Moyo, Herald 08/01/2012; NAC, 2013).

The Islamic dress code is strictly formal with great emphasis on decency Doi, 1984; Schacht, 1986). Sex workers are known to advertise themselves through dressings that traditionally disregard the norms of decency. Men, for the purposes of prostitution, generally attach themselves to those who subvert the norms of decency.

The Levirate marriage law has empowered the widow to turn down compulsory acquisition and has allowed her to inherit a portion of her father and late husband's

property. Inheritance empowers the woman to have livelihood outside marriage. The problem lies where the levirate law has assimilated non Islamic local norms which compel women into marriages that lead to their disempowerment and exposure to HIV/AIDS (Sindiga, 1995; Chimhanda 2002; Rafiq, 2009; Makaudze and Guhlanga, 2010).

The variables that are HIV/AIDS prone are deviations from the Islamic norms. In this regard following the Islamic marriage principles closely, puts Islamic praxis in the panacea category. But the Islamic norms are not without their challenges.

The "Responsibilities Law" excludes the less economically privileged from marriage. Jurists by enforcing this law leave the affected people with no outlet for their sexual emotions beside fornication (though this may relate to an insignificant minority). This fornication however finds moderation in the excessive separation of sexes and the penalties attracted by illicit sexual behaviour (Doi, 1984; Olsen, 2009).

Polygyny creates conditions for dissatisfaction among the wives (Surah, 4:129) and this can be a recipe for disaster. A single marriage with five partners increases the chances for coming across the virus, though strict separation of sexes modifies the extent of illicit heterosexual contact. The principle of temporary marriage even if positively used in the modern world exposes partners to the virus that causes AIDS. If it is meant to target women in need, still some of the women in need may be widows of AIDS victims. The subornation of women which Mujtaba and Lari (1977) describe as "violence and tyranny" leads women to accept a man who has had temporary marriages without complaints.

Divorce by *khul* deprives the woman of livelihood thereby thrusting her into the habit of temporary marriages for survival. Abject poverty that Mujtaba and Lari (1977) discuss is a key driver leading people into illicit bread and butter unions which are prone to contracting HIV/AIDS (Rafiq, 2009; NAC, 2014). The re-marriage law has problems if dogmatically followed. Making reconciling partners remarry only after the woman has consummated and dissolved a marriage with another man exposes partners to the AIDS scourge. Modern Muslims however have found a way round it by contracting fake marriages which are only consummated in principle. Such marriages though innovation, are recognized as valid.

The negation of condom use has dire consequences in mitigating the spread of HIV and AIDS (NAC, 2014). Where the condom has been consistently used the results have shown a reduction in new cases. Due to government policies driven by international norms some Muslims are beginning to accept condom uses in particular scenarios (Rafiq, 2009; Speakman, 2012). Even in such cases abstinence and fidelity in marriage advocated by the Muslim marriage principles are known to be the best approaches to date.

Correlation between religious laws and HIV/AIDS

The correlation between religious laws and HIV/AIDS is an ambiguous one (Du Toit, 2013). While both Christians and Muslims stigmatize HIV/AIDS as emanating largely from sinful risky behaviour and in unison call for abstinence and fidelity in marriage, HIV prevalence peaked among Christian majority adult populations in sub-Saharan Africa; with the same region recording negative prevalence among Muslim populations in direct proportion to Muslim population density (Speakman, 2012; Gray, 2003; Gray, 2004). Swaziland with a majority adult Christian population of 82% has the world's highest prevalence of 25.9% while North Africa and the Eastern Mediterranean with majority Muslims populations have prevalence rates of 0.15 and 0.3% respectively (Speakman, 2012; Roudi 2011; Hasnain 2005). The negative correlation between Islam and HIV prevalence logically emanates from the symbiotic relationship between religio-political authority of the ruler and religious sanction. The Muslim rulers combine both religious and political powers which give weight to their sanctioning of behaviour. In that respect they are able to enforce Islamic family laws in relation to separation of sexes, abstinence, fidelity in marriage, intoxication and circumcision with relative ease. Abstinence and fidelity are even higher among *sudja* Muslims (Muslims with hyper-pigmented spots on their foreheads due to frequent prostration in prayer) leading to even lower HIV prevalence (Kagimu et al., 2012). Circumcision which is a religious obligation for Muslims cuts male risk by 50% and female risk by 30% in relation to sleeping with an HIV positive partner (Epstein, 2008; NAC 2013). Religious impact on the conception about illness which grows stronger with compact and less westernized communities cannot be underestimated (Gray, 2003; Speakman, 2012). Behaving in accordance with religious tenets may have impacts on health and disease transmission, because religion puts constraints on sexuality, and in particular Islamic affiliation inversely associates with HIV seropositivity (Gray, 2003). Islamic ritual washing for example increases hygiene and negatively affects STDs prevalence.

Hypothetical postulation on possible impacts

The information gathered so far persuades this writer to hypothesize that the Islamic marriage can act as a panacea to the problems of HIV and AIDS. This despite the fact that relatively easy divorce among Muslims increases lifetime sexual partners, which epidemiologically associates with increased HIV risk, because circumcision, and laws banning premarital and extra marital sex moderate the result (Genrich and Brathwaite, 2005; Rafiq, 2009; NAC, 2014). Moreover divorce is increasingly being removed from the private domain into the public court domain (Doi, 1984; Olsen, 2009). Court interventions make it possible to hypothesize that divorce

among Muslims may gradually become difficult, further thrusting Islamic marriage into the panacea category (Stanberry and Bernstein, 2000). Polygyny, another controversial area, is under pressure from modern hermeneutics and national governments, who are fighting to further reduce the incidence of multiple life partners (Doi, 1984; PCN, 2007; Olsen, 2009). In this light polygyny has entered a new phase in which its gradual constriction may be postulated. In this regard it can be argued that religion places a code of moral norms which directly impact any understanding of the pandemic related to human social behaviour (Benn, 2002). Where human social behaviour is simultaneously controlled by religious moral codes and political sanction the results reflect low HIV incidence (Hasnain, 2005; Roudi, 2011; Speakman, 2012).

Conclusion

The study has concluded that the Islamic Family Laws make marriage user friendly to a greater extent. This is true of laws that enforce circumcision, virginity and fidelity in marriage. On the corollary there are also other laws that leave gaps for the infiltration of HIV and AIDS. This is especially true for those laws that permit multiple relationships while condemning condom use. Due to limited time and space this paper has not been conclusive on the issues of modernists and *tahliil*. Future research that concentrates on the application of modern hermeneutics in relation to these two issues would help evaluate whether Islamic practice with the Quran as its immutable first source can rise to the level of indisputable panacea to the problems of HIV and AIDS.

ABBREVIATIONS

AIDS: Acquired immunity deficiency syndrome; **ARV:** Anti-retroviral; **HIV:** Human immunodeficiency virus; **MSF** (Medecins Sans Frontieres 2014); **NAC:** National Aids Council (Zimbabwe); **OALD:** Oxford Advanced Learners' Dictionary; **PCN:** Polygamy is a Conditional Necessity; **STDs:** Sexual Transmitted Diseases; **TISM1:** The Islamic Sexual Morality I; **USAID:** United States of America International Development.

Conflict of Interests

The author has not declared any conflict of interests.

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Full Length Research Paper

Analysis of the Algerian experience of agricultural and rural development

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This paper tries to reconstitute, according to a historic approach, the diverse phases by which the Algerian experience of agricultural and rural development passed to highlight the maladjustment of these policies because they all ignored the farmer as target of this policy. When these policies marginalize the countrymen in the institution of authoritarian regime, which is imperative model of development, the latter react negatively, which has consequences on the results of the actions of development. To estimate better a policy of rural development, this work shows the deficiencies and the best practice to improve the efficiency of the future actions of development.

Key words: Agricultural Development, agrarian reforms, experience of development, Countryman, Algeria.

INTRODUCTION

The agricultural and rural development took, in Algeria, a remarkable development since the year 2000 and continuous this day to arouse self-satisfactions as questionings as for the results reached in consideration the colossal sums injected since. The complexity of the contradictions expressed towards the process of global development of the country and the agricultural and rural development in particular reports on one hand the opacity of the information relative to the actions of development advocated by the government and others part of the non-existence of institutions (public, private, administrative, legislative, civil society, non-trading companies, etc.) for the evaluation of the diverse public policies and the distribution of the results of its studies.

The passage from a model of development to another one, during the process of development of the country, implies changes in tools and methods of intervention

adopted in every phase.

In spite of the reserved results of the diverse actions of development committed by the Welfare state which " by the mechanisms of distribution and reassurance, allows individuals not to depend completely on the market for their survival, it guarantees other forms of existence " (Lessenich, 2008) the agricultural development policy and the countryman begun since 2006, opens a way towards a new vision of the participative and integrative development which deserves an analysis of the process of conception, implementation and the socioeconomic impacts on the target populations.

This first report authorizes us to ask the following question: the new Algerian policy of rural development Policy of rural revival (PRR), does she really go to the sense of a politics participative and integrative as it moved forward in reference texts by the government?

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Besides, it is obvious through the conception of the Algerian agricultural and rural policies we understand that the government Algerian follows to the pat, since 1990, that makes the French Governments (and thus EU) regarding rural development. It is considered as recognized, is that the Algerian policy of rural development really follows all the aspects of the French policy, in particular the procedure of evaluation of this policy?

They are the big questions which we shall try to answer within the framework of a rural research project in Economy on the evaluation of the Algerian policy of rural development, called "policy of rural revival" (PRR).

To this end we propose a model which feeds jointly of the fact that offer us the historic approach, the economy countryman and the assessment of public policies as the methods of approach. It is true that there is no approach appropriate to the rural economy and in the assessment of public policies, but our ambition in this work and to be able to combine these two disciplines to answer our central questions known presented.

We will try, through the various experiences of agricultural and rural development in Algeria since the colonial period in the independence, to know better the past to better master the future (Nikitin, 1997). Auguste Comte wrote in this sense in the XIXth century " The doctrine which will enough have explained the whole past will obtain inevitably, as a result of this only test, the mental presidency of the future " (Marrou, 1954).

This knowledge of past could serve us for at least three uses: the entertainment (recreational), the understanding (intellectual) and the resolution of problem (problem solving); as proposes it so well J.R. Edwards (quoted by Nikitin p. 7). Within the framework of this work we do not estimate to solve the problems connected in policies of rural development by the historic analysis. This historic approach is for us of what thinks Fustels de Coulanges (quoted by Nikitin .p. 13) "the history does not solve the questions; she teaches us to examine them."

Besides leaving the quotation of Descheneaux Daniel which considers that "The current problem, always comes from the previous solution." The current situation of the agricultural and rural development, is also result of a process which went well before and which we shall try to present in first access. The existing documentation on the history of the agricultural and rural development in Algeria is ill-assorted what we required to collect in the first one all the documentation very quoted on the subject to make it a reading criticizes to present the phases according to a historic chronology where only the passages in relation in the agricultural and rural development are used for justified our critical presentation of the experiences of development to show after all that the current policy has no many knew how to examine the experiences crossed as improving the present.

The objective of this article is to show that the experiences of agricultural and rural development in Algeria all failed for reasons bound mainly to the

incoherence between the objectives fixed by the governing powers which converged not at all with the national objectives of the populations targeted by these actions of development. Whatever taken measures, the countrymen adapt themselves by taking advantage of what arranges them and by blocking what is contradictory with their expectations.

Some historic marks

Pre-colonial Algeria

The economy of the Algerian society before the French colonization is analyzed as a "pre-capitalist social formation" by certain theses we shall quote as an example: (Gallisot, 1968; Boudia, 1977; Benachenhou, 1978).

The major part of the historians and sociologists consider that the economy of Algeria during this period based essentially on two main activities: the cereal farming and the breeding. The transhumance and the semi-nomadism as the mode of management of the space reigned in plains until the borders of Sahara. Technical requirement and adaptation in the conditions of the environment of a system of culture and a system of breeding where the practice of the fallow has a dual function, on one hand to base the ground further to two successive cultures (three-year crop rotation system) and to establish a reserve of fertilizer and especially herbs for the herd during the period of weld between winter and the spring. In zones mountain dwellers, the subsistence farming and the diversity of the activity which is going to feed the life of urban areas particularly in plain, because " The settled way of life is not exclusively urban, she is widely rural, as far as the country is essentially rural, good that urban populations always existed " (Addi, 1985). Estoublon and Lefèbure (1903) describe the economic activity of the nomad in Algeria at the beginning of XX nth century "Two thirds of the native populations indeed live breeder life. The herd, goat in particular, gets some milk which constitutes the main food of Arabic and his family; the wool of the sheep supplies the garment, the Burnous (dress of the breeders), mixed in the hairs of goats, it serves to make the tent which is the house, the shelter for the family of the breeder.

The tribe as base of the organization of the society constitutes the frame or the support of the social, economic and political functioning. It implies for the management of the territory and consequently economic activities being there, the recourses and the references to the requirements of the tribal logic (Addi, 1985).

In the practice the ground of the tribe was not a collective property because they has no collective work on these lands there but they were a common space (Ground of the tribe called in Arabic "bled djemaa" ground

arch" on which practiced activities in a private capacity family (pasture, cultures, farming of mountain, etc.). Thus the tribe is the frame where the individual practice (private) is the ruler. Moreover a lot give evidence of the existence of the private property of the means of production during pre-colonial period particularly in mountains and "Haouz" (surrounding cities).

The permanent conflicts between the dynasties from the Maghreb to sit a hegemonic regime on all of central North Africa, the isolation of the central authority with its social basis by the dominance of the military power which established additional taxes on subdued tribes to finance the military effort, led to the strengthening of the opposition of these tribes to the central authority. These dynasties had based their economic system on the trade and had neglected the farming and food sector, what led to their weakening then their disappearance when the main commercial circuits are for the benefit of the new European powers.

This mode of production based on the trade like a source of reproduction of which is totally external (circuit of the gold, the slaves and the salt) by marginalizing the auto supply food through the strengthening of the feeder sector, the agriculture and by dissociating itself enough from its social basis, the people Take care and defend the territory; did not survive the slightest changes in the orientation of the commercial circuits.. In other words the regimes based on the power of the servicemen and the centralization of the decision risk to lose not only their economic base but also and especially their social basis.

This phase informs us that: when a central authority disconnects from its social base and imposes him a military regime, she incurs to lose her base social and her unifying power.

Algeria during colonial period

The French colonization by affecting directly the land structure affected directly the mode of organization which assures the social cohesion and certain balance between the man and the environment. The levying of the inn alienation and the joint possession of lands and the payment of the land funds so held in the field of the State colonial is going to upset all the social orders, the mode of organization agro pastoral (nomadism and self-sufficiency) and the system of production cereal / breeding. The transformation of tribes in Douars (hamlets), it should be noted that the continuous process at present (transformation of village in municipality, city in department), with "Sénatus Consulte" of 1863, led to an artificial grouping and so dismantles the social frame the collapse of which had repercussions not only on the economic plan but also on the human and psychological plan (Addi, 1985).

The agricultural colonization of lands concerned in the first one the zones of plains (coast and internal plains)

seen the wealth of grounds and the best weather conditions from which they benefit for a speculative farming totally directed to the export. On the other hand the expulsion and the stationing of the local populations in mountain massifs and thin lands had for consequence the disorganization of the rural world and the pre-existent systems of productions.

The results of the colonization led to the constitution of big colonial farms in any regions of the country, the dislocation of the family production units under the influence of the pressure demographic and the colonial laws. These transformations are at the origin of the constitution of an agrarian bourgeoisie, of a not capitalist trade farming community and a proletariat of agricultural origin for all the economic business sectors (Bourenane, 1982).

The colonial economy was essentially based on the exploitation of the best lands quite meadows of the Mediterranean Coasts, expropriated at the price of pains and genocides confirmed in several regions of the country.

The new colonists come from France and from other European regions (Malta, Spain, Italy, etc.) exploiting more than 2 million hectares of fertile lands set up systems of production intended essentially for the European market and mainly the metropolis.

The impoverishment of the populations became more where the famines came along with epidemics in 1867 in 1868 when a million Algerians died (Keddache and SARI, 1983). The imbalance creates by the colonial system in the mode of appropriation and exploitation of the space through the multiple binding laws, for the peasant masses already confined in the fragile zones such as: the code of forests, the code of waters, land laws of 1834 and those of 1846 to the whom it will be necessary to add the laws of "Sénatus Consult" of 1863 completed by the law "Warnier" on 1873, the code of the native population 1881, and the laws of war economy of 1918 and 1939.

The totally extrovert colonial economy where the clear surplus was invested in France and in Europe, supplied no opportunity of employment in Algeria.

All the French people of Algeria has an upper average annual income 350.000 F.F (French money in that time) by person, while that of the Algerians is lower than 50.000 F.F and represents less than 20.000 F.F for the mass living in the traditional sector.

The social consequences also appear in the non-integration to the economic circuit of 2 and a half million Algerians. The total and partial unemployment in cities concerns 990.000; add to it the rural exodus, and the emigration of 400.000 Algerians towards France. Illiteracy affects most of the population (more of 4/5 of people over 6 years are illiterates), the deficiency of the housing environment and the sanitary organization that translate the multiplicity of shanty towns and shanties and the low sanitary implantation in campaigns are so many misfortunes lived by an autochthonous population at a loose

end.

The agrarian dualism, created by century and 32 years of detention, expropriation and marginalization of the Algerian rural communities, is considered as a sign of a peasant resistance in a complete penetration of the capitalism realized by the relative fixed immobilization of at least half of the farmlands (58 %) in the traditional sector. The colonial modern sector did not introduce new techniques of production and did not widen the training and know-how to it makes agricultural populations local. The introduction of the monoculture (vine growing) and the low diversification of the productions reduced the opportunity to invest in other modern technological crevices (Molina, 1982).

It takes out again of the analysis of this phase that the marginalization and the exclusion from the populations by the military force and from the law had as consequences a destruction of the base of production and the creation of the feelings of hatreds and revolts at the Algerian countrymen to whom they were not able to escape finally.

The agricultural and rural development from 1962 till 1999

The study of the Algerian experience of agricultural and rural development since the political independence is interesting in many respects: The voluntarist social and economic option of development, undertaken since the independence, began in the first one with transformations of the agrarian structures, inherited from the colonial period, in continuation she launched into actions of development.

This experience is presented, at this time, as an example to be followed for Third World countries. Several observers considered that the Algerian model is an original reference allowing the emergence of an industrial auto-centered economy and an independent of the dominant models during the cold war.

This experience is characterized by the profound transformations of the agricultural structures in the beginning of every new agricultural policy. We identify four main phases reflecting the type of agricultural and rural policy decided by the governments in position since 1962 and we are going to present them below to be able to make a judgment of the effects from the diverse actions of development on the farming and rural sector.

First experience of 1962-1965: recovery of the sovereignty and the self-management

The priority actions of the government targeted more the nationalization of the resources and the means of production, but also he had to negotiate with diverse partners for the implementation of the structures and the public authorities continuation at first massifs of more than 900.000 of European especially 300.000 active persons which assured the administrative and economic supervision

of the country. Besides, the management of the consequences of the politics of the "scorched earth" and the totally extrovert economy represented for the Government a major concern of him after independence.

The economic and social situation considered serious and worrisome: more than 2 million without jobs and 2, 6 million without resources none to meet their most elementary needs on a total population of 9 million inhabitants (STORA 2004). More than 40 % of the population lived in poverty the most total (STORA 2004); in 1964, the poor farmers (who the surface is less than 10 ha) are among 425.000 souls and the farmers without lands in 400.000 souls. It was necessary to the first Algerian government "to attend to the most urgent things first".

The agriculture and the food-processing industries represented more than 85 % of the exports in 1958. The exclusive control of the State of these two sectors had to allow on one hand to master the allocation of resources but also it could adopt development policies financed by these two sectors.

In the industry, the State takes care, since the beginning all the existing companies. It is by the purchase of the participations of the French State in the industrial operations of "Constantine's plan" and the services and the public institutions which were of the colonial State monopoly (Ecrement, 1986).

In the rural sector, this period is much more characterized by the institution of the agricultural domains auto-managed on the colonial lands. The spontaneous departure of the colonists and the managers of the colonial farms, created a space, very fast filled so spontaneously by the employees of these colonial farms and the farmers without lands used previously as the seasonal workers, what allowed saving the agricultural campaign 1962/63. The workers of domains spontaneously begun to be organized in "administrative committee", in spite of the difficulties, they make working production system, then a real movement auto-managed appear for making run the economic entities. However the agrarian sector does not benefit from a sufficient attention although ¾ of the population pull their income and their survival.

The self-management, as a shape of exploitation of the colonial farms imposed of made by the farm ploughmen, especially those them more politicized, is going to be generalized to fill the space in which was the sector and "to protect the national productive heritage" according to Taïbi Labri, Minister for Agriculture in 1970. This is the way there was a first official recognition of the creation of management committees created by the workers on the vacant agricultural domains (approximately 1.300.000 ha on more 3000 colonial farms).

In 1963, the State gets back the not vacant colonial lands on more than 200.000 ha and the lands of the French people having chosen to stay in Algeria on more than 1 million hectares. This recovery of this real estate is legalized by the decrees of March 1963 relative to the

vacant properties:

1- The Decrees of 18 Mars 1963:

* Decree N° 63-88 carrying vacant regulation of the property stipulates that the law of the properties declared vacant escheats, it is attributed to nobody;

*Decree N°63-90, carrying creation of the national office of the agrarian reform (ONRA);

2- Decree of 22 Mars 1963 organizes the management rules of the vacant agricultural companies;

3- the Decree of 28 Mars 1963 concerns the determination of the rules of distribution of income of the self-managed domains.

Thus, in the face of the reaction to the occupation of farms by 150.000 workers who took in hand the agricultural activity, the State established administrative institutions supply as the Agricultural Society of provident (SAP), Cooperatives of collective use of farm implements (CUMA) and financing as the Agricultural Box of Credit and Mutual Assistant (CACAM).

The centralization of the decision-making and the multiplication of the intermediaries between the farmer and the means of production (credit, equipment, inputs, popularization) were forms favored to the hands of the government to control the sector. After the first revolutionary years of enthusiasm during which the production was maintained, the indifference of the workers of farms settled down at the same time as strengthened a strongly centralized and bureaucratic management ((Bedrani, 1980). So the ONRA will be loaded exclusively of all the operations which go of the production, to the types of cultures, the supply to the marketing, of the credit in the investments, etc.

Besides, the nationalization of the farming sector (lands, means of production, marketing, etc.) establishes the first premise of the syllogism that the treason of the farmers who were at the origin of the revolution of 1954. It this is observable through the land and technological cleavage in campaigns to the detriment of the great majority of the poor and landless farmers. The importance of the partial or total agricultural exodus (Benachenhou, 1979) which tends to be transformed into drift from the land in the strict sense (AGERON, 1977), can give some explanation by this situation.

The transformation of very countrymen's large numbers in employee showed itself through, the recovery by the State of all the means of production then by the institution of the prevailing wage system during colonial period: the Agricultural Minimum wage Guaranteed (SMAG: inherited from colonial period and generalized in all the country from 1964) that we called " advance on income " remained constant from 1964 till 1971 and was 7,54 (Algerian dinars: DA) a day really worked (what represents an hourly pay of 0,9425 DA) (Ecrement, 1986).

In comparative title, in B.T.P., average of the hourly pays passes from 2, 36 to 2, 60 DA between April, 1971 and April, 1972, while at the same time the average

hourly pay in the industry and the building increases from 2, 63 to 2, 88 DA for the simple employees even if it is stronger than the national average for the highly qualified workers is passed from 3, 86 to 4, 4.5 DA (Antoine, 1977).

In 1962, a half-million of Algerian work in France (Cread, 1982). During the first decade of the independence, the emigration towards Europe and especially towards France drains countrymen's particularly important flows, thus limiting the influx towards the Algerian cities. But this "safety valve" is going to disappear from 1973, the "suspension" of this movement by the Algerian authorities coinciding with more and more restrictive measures of France.

The financing of the public investments between 1963 to 1966 is estimated at 3, 9 billion DA among whom 38 % result from the oil tax system.

It is clear that dice the departure the agriculture, and consequently the major part of the population (living in rural areas) received few investments to meet the multiple problems in which she is confronted with the exit of long and exhausting one war.

However, the Government in position did not set up a coherent agricultural policy for the development of the agriculture, in the sense or the major part of the rural activity was agricultural. However certain actions were maintained or launched recently with the aim of guaranteeing certain income to the populations marginalized by rural areas;

Popular Construction sites of reforestation: given that the regions of mountain extending over 20 million hectares and among which 63 % are situated in more than 800 m of height; so, the quarter of lands is situated on slopes superior to 25 %, little covered by the degraded vegetation; the popular Construction sites of reforestations (CPR) had for main objective to make the rural populations participate established by the farmers without lands and the poor farmers to the program of reforestation in regions with strong unemployment rate through which, the priority was given to the development and the farm.

Rural Equipment: Erosion control developed with a strategy of rural equipment called DRS (Defense and restoration of grounds). This colonial strategy, since 1940 aimed on one hand at the ban on the exploitation of the forest by the poor farmers confined near mountains and on the other hand protection of lands and dams to favor the colonial agriculture (Arabi and Kedaid 2004). This strategy had was maintained after the independence further to the recommendations of the French advisers) of the Ministry of Agriculture and of re-forms agrarian of Algeria (MARA).

Even if everybody agrees to say that seats (DRS) did not break the erosion where they were introduced, this experience was reintroduced under the new name in 2000 within the framework of the program of rural employment (PER).

As regards the hydraulics, Algeria inherited from 14 said dams of the big hydraulics of a theoretical total capacity of 487 hm³ as well as several subterranean drillings, especially in oases Saharan as those of "Oued Righ". Algeria had built from 1962 till 1980 three dams among which one was already under construction during the war of liberation, and 26 dams are launched between 80 and 90 to arrive at a volume settled on 1745 hm³. The wide gap between the equipped surface and the really irrigated surface (exploitation of only 17 % of the hydraulic potentialities in 1990, cost 1,81 DA / M³, equipped surface 109024 ha while the really irrigated surface exceeded war 51767 ha in 1967 she is only 338000 Ha in 1990 among which more than 35 % in small hydraulics the statistics of which are little reliable) reports the high cost of the irrigated perimeters and of and the difficulties affecting an intensification of the agricultural production so advocated by the successive governments.

The second experience: 1966-1979: period of implementation of the national strategy of economic and social development

This period is known by the dynamics at every level. It is during this period when the Algerian experience of development is implemented by what is called "national strategy of economic and social development" (SNDES).

The change of the power, arisen further to the military coup of 1965, came not as an answer to a disastrous political or economic and social situation, either to change ideology and blocked strategy but on the contrary to accelerate a process which has already begun but with more intransigence and authoritarianism.

This new logic in the action of the State "aimed at two parallel purposes: on one hand the liberation of the economy of the foreign dependence and the recovery of our national wealth and on the other hand the construction of a state, free economy, based on solid bases" (Benissad, 1979).

In the SNDES, which draws a plan of growth on the horizon 1980, a net priority is granted to the industrialization.

It was necessary to commit re-form in the farming sector to finance the process of industrialization (Molina, 1982), and to wait for 1967 where the value of the oil tax system overtakes the resources of the agricultural and food-processing exports.

The farming sector enters in crisis of export from 1967 when it represented 16, 2 % of the total exports to cross in 1979 a rate of 1, 3 % of the total of the total exports further to repressive measures taken by France to counter in the nationalizations and the pro-independence options of the new tenants of the power in Algeria.

In the court of this period cooperatives of breeding were organized (in 1968), under the supervision of the Association for the Development of the Pastoral Breeding

(ADEP). These cooperatives benefited from the best rang-lands of and from a big logistic backup of the State. They were dissolved in 1976 not having answered the objective going to the sense of the improvement of the pastoral productions and the management of rang-lands.

The agriculture as important activity practicing in the rural sector is characterized by the diversity of the productions, by the mode of organization (traditional subsistence farming, modern trade agriculture, concession, lease, Khemmassa, etc.) and by the diversity of the participants (rural communities, city-dwellers, States, NGO, local authorities, etc.). Although she is subjected to strong constraints, always stays an administrator of the rural space and big producer of the human and animal food. For that purpose it was for a long time the object of multiple state interventions under diverse forms going development programs to the policies centralized for the farming sector to the actions on the agricultural and agro-industrial sectors.

To implement the socialist option, the plan is considered as tools privileged person for the direction and the management of the development. For that purpose, Algeria asked first of all to the World Bank (BM) to help him to set up a national system of planning. Unfortunately the experts of the BM preferred to propose in their final report a mode of liberal development which is judged by the Government of period "as incompatible with the Algerian will of independent development ". Then, he is called on to the organ power plant of the planning of the Soviet Union (GOSPLAN) which sent armada of experts' to define the methodological base of what is afterward the system of national planning. The latter it is set certain goals as we summarize as follows:

- the introversion of the economy and the break with the plan of colonial extroversion;
- the vertical joint of the various branches of the industry (what is called blackening of the matrix input / output)
- the integration of the agriculture in the industry through the control of the costs and the prices of farm products by the control of the production and the marketing (to guarantee a food in the hand of industrial work at a strategic price).

So a test three-year plan is launched between from 1967 to 1969; the first real development plan is the four-year foreground 1970-73, the second four year plan is the one launched in 1974-1977. The promotion of the mechanization and the "chimisation" of the agriculture had to allow the new industry to have an internal market for its future products. This excessive mechanization is considered as the only one to allow increasing the agricultural surplus.

The agrarian revolution first large-scale operation in favor of country sides since the independence, assigned as priority objective a " just and effective distribution of the means of production and at first of the most mattering of them, her ground and this to provide a fraction of the poor and landless farming community" (Hersi, 1980).

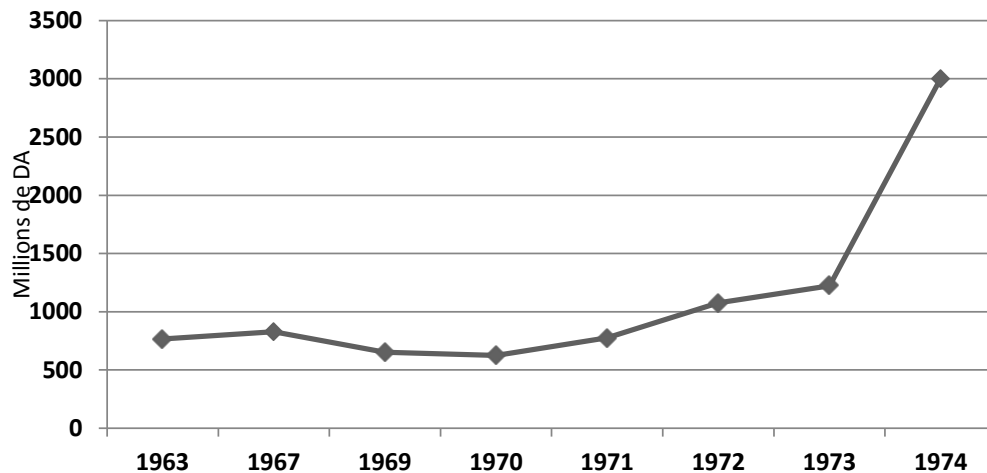


Figure 1. Evolution of the Imports of the food goods in current DA. DA: Algerian dinar is official money. Actually 1\$ = 79 DA.

This operation allows to get back, from 1972 till 1976, a little more than a million hectares of lands of very uneven quality for the benefit of about 85 000 assignees (that is approximately 10 % of the poor or landless farmers), included for the great majority in producers' cooperatives.

A program of "one thousand socialist villages" is launched from summer, 1972, that must offer, to the assignees, new rural centers, constituted from 100 to 150 housing of suburban type endowed with the electricity and with the drinking water, and arranging main community facilities (school, health center, markets). This new living environment allowed improving the living conditions in certain rural areas touched by the program and the reduction of the disparities between cities and countryside.

The continuation of this program was not able to allow to realize that 400 villages (instead of 1 000 planned) which constitute the least controversial "experience" of the "agrarian revolution".

Given that the policy of structures, based on the agrarian reform of 1971, also joined within the framework of stabilization of the political situation by setting up the bases of a hegemonic state apparatus in consideration the demographic importance of the rural world (population countryman in 1966 was 8.314.000, in 1973 it was 9.400.000 souls, in 1977 it was 10.067.000 according to the diverse censuses from 1964 till 1977).

The plan of development, defined by the four-year first one (1970-73), the industry had to contribute to modernize the agriculture by stimulating the technical change on the condition of prerequisites which must be realized in the domains of the organization of the agricultural production and the land structures.

The dangerous consequences of these choices on the food safety of the nation begin to appear because the rate of auto-supply in basic foodstuffs (milk, dried vegetables, wheat, etc.) to decrease for the benefit of an

increase of the imports of food-processing products during the sixties ten and continues until this day.

It is from 1967 that the agricultural exports decrease in favor of the exports of hydrocarbons and consequently, an increase of the food imports became a necessity to counter in the disorders of food shortages further to the neglect of the agricultural and food-processing production. The stagnation of the agricultural production conjugates with the demographic growth (2, 43 % in 1962, 2, 60 % in 1965, 2, 85 % in 1968 to affect 3, 25 % in 1983) to deteriorate constantly the food dependence of the country (Figure 1).

Of 766 million US \$ of import in 1963, the value of the imports take a dangerous speed because they passed in 3 billion US \$ in 1974 (cf. graph n°01).

The application of the Agrarian reform was made in successive phases to guarantee at the most its success: the first phase, launched January 1st, 1972 on June 16th, 1973 and aimed at constituting from the municipal, state-owned lands, the HABOUS, and the lands of the other public authorities (that is 3000.000 ha planned) a first agricultural land bottom. The second phase, launched on June 17th, 1973 on June 16th, 1975 allowed the nationalization of the properties of the absentees and the limitation of the big landed properties of the private sector. And at the end the third phase, concerned the development of the steppe and the limitation of the livestock, begun in 1975 and that must concern the municipal, state-owned rang-lands and ARCH on 20 million Ha. This last phase was reduced to the creation of 200 cooperatives of pastoral breeding of the agrarian revolution (CEPRA) and 49 ADEP and the payment of lands to the National Front of the Agrarian Revolution (FNRA).

The creation of the Municipal Multi-purpose Agricultural Cooperatives of Service (CAPCS), organized in 1973 to put at the disposal of the farming sector the working tools

of the ground, the realization of the works with way, the supply in fertilizers, seeds and other raw materials entering the agricultural production.

During the 2nd Development plan (1974-1977) the State launched said "operations of cereal intensifications" of this fact she agreed a material and financial help for the benefit of the private farming sector. This help consists of the free distribution of fertilizers and fertilizers, of phytosanitary products, selected seeds and the realization of works with way insurant by the CAPCS. About 50 000 developers will be touched by this operation which also widened in the operations of fruit and wine-making groves realized on 90 000 ha of the spa, the development of infrastructures and hydraulic equipment (drillings of wells, harnessing of source, granting of motor-pumps, etc.) and of distribution of family henhouses and apiaries to encourage the practice of the poultry farming and the beekeeping.

But with regard to the low financial capacities of the small farmers (especially those of subsistence) the said operations of intensification and credits of equipment granted on temporary competitions much more benefited the big and average developers.

The failure of the experience of the cooperative farms advocated by the agrarian revolution live in its character "dictated and imposed". This compulsory model from the outside was considered as the only real shape of social advancement. The Algerian farmers do not miss in their usual mode of organization and in their social traditions of practices of mutual aid, cooperation and collective work. Touiza is one of their forms of mutual aid the best known in a system managed by "Djemââ" (wise men of the community amount of the local assembly).

The end 1978, 5 980 cooperative units or meadow were counted. The forms of these cooperatives are diverse: the CAPRA (4 205 units), the agricultural Cooperatives of Joint use (CAEC), among 565 units, the Grouping of development of lands (GMV) are among 914 units and the Groupings of peasant Mutual aid (GEP) among 176 and the groupings of dividends among 10 which represent the forms the least evolved in the agricultural cooperation.

Regarding investment the part granted to the agriculture does not stop falling from 1967 till 1977 to pass of 25 % in 1966-69 in 5 % in 1980-84. Moreover the rate of consumption of these investments in fall decreased to pass of 100 % in 1966-69 in 28 % in 1974-77. It this means that there was a deterioration of equipment during time without being renewed what makes suffer the agriculture of this dilapidation of equipment and means of production.

The rural exodus during this period evolved as follows: 17 000 people a year between 1966 and 1968 - 40 000 between 1968 and 1970 and 80 000 between 1970 and 1973, that is an average of 150 000 migrants a year (Prenant 1967).

Besides, the urbanization of the rural centers began in

1970 when the increase of cities inside was three times as fast what makes them pass from 80 000 inhabitants in 1973 to 256 000 inhabitants in 1970. It this also allowed the not agricultural creation of the other activities in the rural sector. So in 1977, the occupied population (any confused sector) concerns 1.644.700 people while the busy population counted in the agriculture amounted only to 692.000 people.

During decade 1970-80, approximately 1 500 000 countrymen emigrate towards cities, but "without causing desertification of countryside ", by whom the population continues to increase (COTE 1996).

Re-forms of the agrarian structures had no positive effect on the occupation of lands, did not set apart the reduction of the surface of vineyard, the agricultural sole remained identical to that of the first years of the independence. The system of production cereal / breeding dominates with the fallow grazed as way of exploitation of lands integrating the ovine breeding.

The low part of lands allocated to the agriculture is 16, 6 % among which 80 % are lands of pastures and rang-lands denoting the lack of works of restoration and land improvement. Lands left with the rest represent more than 8 % of lands used by the agriculture and represent more than 46 % of farmlands and it is the private sector which practices most this system of culture.

Cereal which constituted the staple food of the Algerian population saw their production decreasing during period 1977-82. So it fell below the levels reached in 1962-67 (896.000 T of Durum wheat produced in 1962 to 67 and 720.000 T in 1977-82).

The third experience 1980 to 1999

The period 1980-1986

The results of what was called "effort of construction of an independent state economy and a locomotive for the global development of the country" are questioned from 1980.

It is after the death of the president H. Boumediene that was invited the congress of the National Liberation Front (FLN) to begin a change, at first soft (change in the continuity) through a five-year plan (1980-1984) which will disastrously be followed of second five-year on 1985-1989.

The first measures of liberalization that knew the farming sector and the other sectors which are connected to him such as the hydraulics, the IAA, the agricultural mechanization, the supply, etc. touched the means of production and the way of functioning.

It is during this period that the self-managed domains were transformed into several socialist agricultural domains (DAS) and the implementation of the program of ascent in the landed property (APFA) especially in the South. It is as well, during this period that the five-year

plan is launched and the begun restructuring of public enterprises. It will be necessary to say that this period knew the opening of the Credit Agricole and the technical support about the private sector which in taken a very important development.

The Agrarian reform of 1981 (the restructuring) which knew the farming sector concerns that the self-managed sector and lasted only a few years and will be obsolete from 1987 following the dislocation of the public agricultural sector.

This reform had to allow a better use of the agricultural space through the creation of technically controllable and economically viable production unit. She had to affect also the cooperatives of the old combatants (Moudjahiddines), the cooperatives of the agrarian revolution having known a strong rate of withdrawal, as well as the lands of the FNRA not yet attributed (Baci, 994).

It is during this period when the agricultural policy, pushed by the economic liberalization, commits new orientations as regards the steppe. This is the way there was dissolution of the pastoral cooperatives, the abandonment of the Pastoral Code in 1982 and the adoption of the file steppe in 1985 which gave rise to the creation of the High commission in the Development of the Steppe (HCDS) (FAO 2001).

In 1985-86, the restructuring of the socialist sector and the land property ownership, began to give promising results, further to the liberalization of the marketing of farm produces and initiative of the agricultural engineers administrators of the DAS. Hardly begun a bill, in 1987, modifying the mode of exploitation of this sector is announced unless no balance assessment was raised.

The period 1987-1999

A vast process of deep transformations of the economy is set up, containing, besides the definition of a new legal framework (privatization of the structures and the means of production), the implementation of a set of structural reforms of the economy, the macroeconomic measures of stabilization and the Sectorial restructuring plans.

However the role assigned to the agriculture is not too different from the previous ones: to meet the food needs for the population and for the state economy (supply of raw materials agricultural, uncorked in industrial products and source of funding of the other sectors of the economy).

The period 1987-1999 knew the restructuring of the socialist agricultural domains (DAS) which are disrupted in collective farms individual (EAC) and farm (EAI) for the benefit of the dignitaries of the power having shown certain reluctances in the reforms, the agents of the administrations and the workers of the DAS, with a total liberalization of the upstream structures and the approval of the agriculture. This "reorganization" had also touched

the structures of environment, marketing and supply and in one certain measures the agricultural financing. Co-operatives or State offices are sold with their assets and their passive to groupings of people.

The State had also sold many of these powers to professional organizations (Farmers' associations, inter-professional councils, farmers' associations, etc.) organized in 1989/90 by governmental decisions on the base of the new measures of the constitution which authorize since 1989, the constitution of social and occupational associations (Bendjeffal, 2003).

To slow down the process of desertification and maintain an ecological balance of the middle by the rational exploitation of the resources, Algeria realized an audacious project "green Dam" which had to be translated by the planting of forest trees (mainly the pine of Aleppo the choice of which was questioned by many specialists.) and some fruit species on a depth from 10 to 30 KM and that must join the Tunisian and Moroccan border (on 1500 km on average).

The national plan of fight against the desertification, developed and implemented since 1987, fitted within the framework of the various development programs of steppe's zones. He aimed at the intensification and at the extension of the project green dam by the limitation of the mechanized plowings by localizing them, within the framework of the development, at the level of the agricultural potential zones (Dayas) and at the end the reconstruction of forests degraded by the Saharan Atlas.

For the protection of the forest heritage, a program "big works" was introduced in 1994 and articulates around the forest axes of reconstruction, protection and valuation of the heritage. It is through these actions that the waterside populations benefited actions of opening up and employment in these construction sites.

A Fund of the land reclamation by the Concession (FMVTC) is set up to finance the creation of farms on the lands of the public domain, being a part of the domain deprived of the State. These exploitations are given in concession to private individuals (generally landless farmers or small developers) who participate in the investment by a minimum of manual labor in theory corresponding to 30 % of the amount of the project.

The project rural employment (PER1), which touched the region the West of the country since 1997, allowed capitalizing a good experience in the field of the integration of the rural populations by means of the participative approach.

The craze of the government for this new approach of development and the first registered positive results militated for the extrapolation of this project type, in particular from the point of view of the approach, of the mode of financing, in other zones. It's in this context that the Government introduced the second project of rural employment (PER2) in 2002 while requesting the assistance of the World Bank for a co-financing.

This project also aimed at developing jobs in rural

areas through the realization and the rehabilitation of agricultural infrastructures and protection of natural resources.

The new options of agricultural and rural development: from the PNDA to the PRAR

The National Program of Agricultural Development (PNDA)

The financial ease of the State from 1999, allowed to undertake a set of program for the re-launching of the diverse sectors: the plan of support of economic recovery (PSRE 2002/2004) and the complementary plan of support for the growth (PCSC 2005/2009). This plan schedule 300 billion Dinars to support the agricultural and rural development, what represented 7 % of the total of the program. Thus this envelope exceeded 180 billion to endow the country of modern economic, social and administrative infrastructures.

The agricultural, very late sector, benefited from a development program (PNDA) launched in 2000 among which the objectives "converge on the reconstruction of the agricultural territory and the development of the production". New procedures of support for the agricultural activities and put in coherence of money programs (bits, highlighted by lands and agricultural hydraulics) are launched.

The National Fund for the Regulation for the Agricultural Development (FNRDA) granted going subsidies from 50 to 70 % of the amount of the investment. But afterward a credit was almost automatically granted to the beneficiaries to cover their parts in the investment with a low rate of interest not exceeding 3 %.

In 2002 the PNDA is widens in the rural dimension and becomes national program for the agricultural and rural development (PNDAR). It coincided not without fate with the signing of the agreement of Association with the EU.

A) Inventory of fixtures at the end of this experience: some indicators.

Inquiries made by ONS (national office of the statistics), on 1988 and 1995 and the various realized estimations showed that the phenomenon of the poverty presented through the data gives of what to question the previous experiences of development:

1. In 1995, 22, 6 % of the Algerian population is considered as poor man. Furthermore, 30, 3 % of the rural population is poor, clearly higher rate in comparison with that of the urban population (14, 7 %). It also revealed that 70 % of the poor people lived in rural areas and that the rates of poverty are higher among the heads of the household working in the farming sector. The life expectancy in the birth is 67, 26 %, and 22 % of the population is deprived of a drinkable water source. So, 13

% of the children of less than five years suffering from weight insufficiency.

2. At the end of 1998, on the compulsory schooling (6-15 years) do not affect 7 % of this category. As for the secondary education (16-19 years) 37 % are not schooled, while for the superior (higher education) it is only 23 % of the category of 20-24 years that is schooled and rest still very limited to certain sectors of society. All in all, more than 34 % of the population in 1998 is an illiterate.

3. The statistics give more than 7 % of unemployment in 1995 (that is more than 2 million unemployed persons onto a working population of 7, 5 millions).

4. In the legislative device, the procedure of inscription in the PNDA of 2000 being very long and demanding obliging the developer to pass by several intermediaries (delegated municipal, engineering consulting firm, solicitor, APC, suppliers, subdivision, CRMA, etc.) to join the program. Besides the conditions of eligibility disadvantage a little the fragmented farmers having no deeds of property in their name (inheritance in joint possession).

5. In May, 2001 realization of the Map of the poverty in Algeria which distinguishes 18 indicators which we can group in four big types: the education, the health, the housing and the ratio of wealth or income. It is the municipalities which appear with the most unfavorable situations for at least three domains on four which were highlighted: they are all in all 177 on 1541 municipalities (UNDP, 2001).

It is to raise that among these municipalities:

*92 is thus 51, 4% have an infant mortality superior to 58%;

*Only, 7 of them, have a ratio of wealth upper to 500 DA per capita and a year;

*172 is thus 97 %, have a synthetic index of the unfavorable or very unfavorable housing;

*174, have an index of the unfavorable or very unfavorable education.

6. In 2003 there was an elaboration of the National Strategy of Sustainable Rural Development (SNDRD) by a French engineering consulting firm and from which the implementation with title experimental was postponed until has 2006 to be generalized from 2009 on a five year plan until 2014.

Conclusion

To conclude, it seems clear through these multiple experiences tested for the agricultural and rural development in Algeria, that:

1. The dynasties of 10 in 14 e century have create a gap between them and the populations countryman by taxes and taxes required without counterparties regarding

support for the development. Turks continued the tax scheme of the farmers until impose taxes on the property of one goat. French by their colonial marginalizing and expropriating system the farmers did not last in the multiple peasant revolutions even if he set up a "modern" said new agricultural system but which was totally extrovert. The governments which followed one another after the political independence wanted too to impose a hegemonic and dictatorial political system to base a foreign socialist economic system, and even refused by the major part of the farmers. Even for good reasons, for equality and for justice, the Algerian farmers adapted themselves to break what was imposed on them.

2. The incapacity to implement a strategy in coherence with the capacities and the habits of the majority of the population and by implying any stakeholders of the sector to participate in the elaboration and the realization of the fixed objectives, was one of causes of the bankruptcy of these experiences and that it's time to rethink the approach and the tools to reach the goals of the food safety and of improvements of the living conditions of the citizens.

ABBREVIATIONS

CREAD: Centre for Research in Applied Economics Development; **EU:** European Union; **CRMA:** Regional Agricultural Mutual Fund **CTW:** Technical Committee wilaya (state) **ONS:** Office for National Statistics; **UNDP:** United Nations Development Program.

Conflict of Interests

The author has not declared any conflict of interests.

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