

Oil extractive emerging industries operating in Ghana and its consequences for the local population and environment

Ghana: location and main data

The Republic of Ghana is a sovereign country located in the Gulf of Guinea in West Africa with 25.5 million (UN, 2012) population and an area of 238,533 sq. km.

The major language is English, universally used in schools, in addition to nine other local languages. The major religions are Christianity 71,20% (including Catholic 13,1%), Islam 17,6%, indigenous beliefs 5,2%:

Ghana is richly endowed with mineral resources. It is the second largest producer of cocoa in the world and one of the largest in gold. The gold industry contributes more than 90% of total mineral revenues; timber, tuna, bauxite, aluminium, manganese ore and diamonds are other important exports. Ghana has also extensive arable land, forests, fishing and hydroelectric potential.

Since 1992, Ghana has maintained a fairly stable political atmosphere, the right and freedoms of individuals are respected as stipulated in the constitution. The current President is Mr John Mahama who took office in December 2012 for 4 years.

Ghana celebrated 50 years of independence from Britain in 2007, the same year that the major off-shore oil discovery was announced, the jubilee field, Ghana's only crude-exporting oil field at the moment which started output in commercial quantities in December 2010.

Therefore Ghana's oil industry is a nascent one but it contributed to make Ghana one of the world's faster economies in 2011. GNPC estimates that 40% of Ghana's oil is onshore, but exploration of these resources is currently not planned.

The oil management challenge in Ghana

There is a strong commitment on the part of the government, oil companies and other stakeholders to turn the oil operations into real economic development for Ghana but the local population within the regions which host the exploitation areas claim measures to be put into place to improve their situation and not to have any environmental problems.

The economic activity of the south part of Ghana, where the oil extraction was located, was mainly fishing and at lower scale farming and to some extends tourism. When the oil production started, the source of livelihood were taken from the citizens of the area with the promise that revenue coming from the oil production had to compensate it and improve their quality of life, specially those living very close from the oil drilling activities.

One fast and appropriate way of compensation for the residents would clearly be the employment in the oil companies but these companies try to avoid it as they confirm that locals don't have the specific education and training.

Besides, oil production pollution brings adverse consequences on the health of the people and on climate change. The enormous environmental impact would affect the ecosystems through spillage of oil and gas flaring.

There are legal agreements signed between the local government and oil companies that should guarantee the livelihood of the local residents and minimise the environment impact but national fiscal law must be adapted to the new situation in the way that oil exploration and production activities have to be taxed adequately in order to boost the public expenses in favour of the citizens.

The constitution makes it categorically clear that should any natural resource be discovered anywhere within the territorial jurisdiction of Ghana, no one person, community or district can claim ownership and exclusive right of it. This also means that in such an event, the national interest overrides the individual or community interest.

Main companies involved in the oil industry in Ghana

The British company Tullow Oil is the main operating in the Jubilee field, 60 km off the coast of Ghana, the American Kosmos Energy Ltd. and Anadarko Petroleum Corp. are also involved in the project. The Ghana National Petroleum Corporation (GNPC) represents the Government of Ghana.

Tullow Oil	36,50%
American Kosmos Energy Ltd	23,49%
Anadarko Petroleum Corp	23,49%
Ghana's National Petroleum Corporation (GNPC)	13,73%
Sabre Oil & Gas	2,81%

Tullow was designated as the Unit Operator, with Kosmos as the technical Operator; a joint-venture integrated project team was created with the rest of partners. The fabrication of the subsea equipment took place in France, Finland, Singapore, Norway, Ghana, UK and USA. The consortium with the support of the Ghanaian Government agreed on a Plan of Development for the 1st phase.

Production is expected to peak at around 230,000 barrels per day in 2019-20. Nevertheless, there are reasons to be cautious. First, oil production and revenues will only come from Jubilee (started in 2010), TEN and Sankofa (start in 2017). The results to date of the Jubilee have not meet expectations, necessitating a costly remediation program. TEN and Sankofa are still in the development stage, the output and revenues from all three fields are subject to production and timing uncertainties.

Tullow has a long-term perspective to developing the oil business in Ghana, they have also a 49,95% interest in the licence which includes the TEN discovery (25 km from Jubilee).

There have been more companies involved in previous phases of the project like Hess and Vanco (American), the Russian Lukoil and the Italian Eni.

Tullow Oil mentality

Tullow Oil Ghana says that the prosperity of the local community is at the heart of its oil operations because of the commercial advantages. If the company can develop the capacity of the communities where they operate, it will help to obtain the raw materials and other services required locally.

Tullow has one entire department solely focusing on local content which has devoted time and resources to invest in training of local suppliers across the country to service the oil industry.

The Tullow Group Scholarship Scheme was launched at the beginning of 2012 in partnership with the British Council to help develop local skills and expertise in the oil industry by supporting postgraduate degrees, technical training and vocational studies.

Ghana's National Petroleum Corporation (GNPC)

GNPC's was established in 1983 and its current primary responsibility is managing Ghana's commercial interest in petroleum operations. It consists of marketing royalty oil and managing Ghana's participating interest in petroleum development but the GNPC real ambition is to evolve into a commercially independent oil company, acting as an operator.

The national company must maximise the transparency and improve governance in their business deals and hasn't be under pressure to get funds for the national treasure because government objectives can't displace commercial objectives.

The role that should be played by the GNPC remains the big question. Civil society actors have long called on government to use it to win for citizens. If the national company is strengthened around a key resource what means to become the operator of it, you can implement your local content better.

The GNPC cannot become a lead player overnight. If the right strategies (capitalisation, legislation and political support) are put in place and if politicians do not use the Corporation for their short-term ambitions, the GNPC could become a lead player in the industry and win for the Ghanaians.

Revenue distribution and fiscal policy

The total figures estimated by the IMF and the World Bank give an impression that Ghana will increase its total revenue in the next 16 years. However the fulfilment of this depends on how well the revenue is managed.

Players in the oil industry (Ghana Maritime Authority, Environmental Protection Agency, Fisheries Commission, Associations of Fishermen, etc.) have proposed that the Petroleum Exploration and Management Bill that is currently before Parliament should pass as soon as possible to provide clear guidelines for payment of compensations to communities adversely affected by the oil activities.

The public dissemination of all monitoring reports on oil companies by the Petroleum Commission to improve transparency in the sector is another proposal of the main oil players.

Income taxes and participating interests represent the biggest components of Government revenue but weaknesses in the income tax regime blocks revenue generation. Ghana should re-examine the provisions of the tax code dealing with fiscal deductions.

Further, the Government should establish workable regulations and procedures implementing the Petroleum Revenue Management Act (PRMA), approved in April 2011, five months after production began from the Jubilee field.

Under the terms of the PRMA, petroleum revenue from all sources is deposited into a consolidated Petroleum Holding Fund. Petroleum revenue is defined broadly to include royalties, participating interests, income and capital gains taxes, surface rentals, dividends and taxes from the national oil company, and any other government income derived from petroleum operations.

The PRMA establishes 2 committees to oversee aspects of the petroleum revenue management system. The Investment Advisory Committee is responsible for monitoring the management and performance of the petroleum fund. The Public Interest and Accountability Committee (PIAC) is responsible for monitoring and evaluating compliance with the PRMA.

It is the Government which mainly fund PIAC's operating budget at the moment so it undermines the committee's independence.

In the two years since the PRMA went into effect, the Government has experienced start-up problems in implementing some of the provisions of the law, and some technical shortcomings in the drafting of the law have become apparent. Nevertheless, the core oversight and public disclosure functions appear to be solidly on track.

The audit function of the Ghana Revenue Authority should be greatly strengthened. However, the overall structure of Ghana's petroleum taxation regime remains progressive, competitive, and flexible and does not require a major overhaul.

Oil receipts have performed below budget, mainly because the Jubilee field is producing below capacity which has affected negatively the funding of the annual budget. The government projects that the sector will reach full capacity of 120 000 bpd in 2013, which should boost fiscal revenue.

Economic issues

Ghana is largely an import-based economy, it sells its raw materials then buy back finish product, the influx of oil is increasing it because it makes increase the demand that can't be met domestically.

The country needs to develop new, labour-intensive economic sectors such as manufacturing and agro-processing in order to tackle the employment challenge and provide economic opportunities to rural areas. This will require coherent public policies to raise agricultural yields, improve the competitiveness of the economy and overcome land tenure issues.

Gross domestic product (GDP) growth decelerated from 14.4% in 2011 (the Jubilee Oil Field contributed 7% to the growth) to 7.1% in 2012. The economic growth peak in 2011 was due to the start-up of oil production in the last quarter of 2010 and by strong mining and cocoa output.

Ghana's medium-term outlook remains healthy, with projected GDP growth of 8.0% (6.5% non-oil) in 2013 and 8.7% (8.9% non-oil) in 2014, well above the average annual growth rate of 6.5% for the period since 2000. Investments in the oil and gas sectors, public infrastructure and commercial agriculture are expected to drive this growth.

The largest contributor to growth in 2012 was the services sector, which grew by 8.8%, contributing about half (49.3%) of GDP. The strongest performance came from hotels and restaurants, transport and storage, financial intermediation, information and communications, and business services, with growth rates exceeding 10%. Financial intermediation rebounded from 1.0% growth in 2011 to 11.4% in 2012. Credit to the private sector in 2012 expanded by 31.4%, as compared to 15.8% in 2011.

The agriculture sector recorded the lowest sectoral growth rate in 2012 (2.6%). The slowdown in the agricultural sector, which is estimated to be the country's largest employer, poses a challenge in terms of setting priorities for poverty reduction.

On the demand side, consumption is key driver of growth, with private sector consumption being the largest contributor. Investment is projected to increase in 2013. Export growth is estimated to have increased slightly between 2011 and 2012, but is projected to fall in 2013 as oil production stabilises.

Gold and cocoa exports accounted for 40.6% and 18.8% of export receipts respectively in 2012 and crude oil exports for 20.7%. Crude oil is currently the second-largest export earner after gold, but has the potential to surpass gold exports if production can be increased to the peak level.

Imports rose from 41.7% of GDP in 2011 to 45.3%, driven by strong consumption growth, oil imports and rising investment activity, especially in the oil sector. In 2013, imports are expected to remain stable at 45.2% of GDP.

Ghana continues to make progress in enhancing its debt management skills and policies, following the organisational reforms under way aimed at ensuring prudent levels of risk, maintaining the public debt at sustainable levels over the medium to long term and developing the domestic debt market.

The total public debt at end-July 2012 was 44.4% of GDP, this amount is within the debt sustainability threshold of 60% of GDP laid down in the Medium Term Debt Management Strategy.

Ghana's financial system remains relatively underdeveloped and still lacks most of the sophisticated financial products that are available in the world's financial markets.

Structural transformation and natural resources

Ghana has experienced less structural transformation than would be expected given its sustained average annual economic growth of 5% since 1990. Agriculture, although its contribution to growth has declined, still accounts for over 20% of GDP and 50% of total employment. The industrial sector (including oil and gas) has remained stable at around 25% of GDP for the past 15 years.

The government's new industrialisation strategy builds on the oil and gas industry to transform Ghana's economy. Oil revenues should finance public investment in infrastructure, although these revenues were disappointing in 2012 due to technical difficulties that lowered production.

The general economic transformation is hampered by the weak transformation of the agricultural sector. Gradual diversification into non-traditional exports, such as palm oil, cotton, rubber and fruit, has slowly driven agricultural transformation.

Social context

The human development situation can be described as mixed. Ghana's latest Human Development Index ranking is 135th out of 183 countries. Ghana is doing well in terms of attaining eradication of extreme poverty, universal primary education, promotion of gender equality and empowerment of women, and combating HIV/AIDS, malaria and other diseases. It has made less progress, however, towards reduction of under-five mortality, improvement of maternal health and ensuring environmental sustainability.

Ghana's strong economic performance has to some extent translated into poverty reduction. Average GDP growth exceeding 5% over the 1991-2006 period halved the incidence of extreme poverty from 52% in 1991 to 28.3% in 2006 and reduced the proportion of people below the national upper poverty line. There remain regional disparities in poverty rates between rural and urban settings, between northern and southern Ghana, and between men and women.

The net school enrolment rate increased from 59% in 2001/02 to 81.7% in 2011/12. This performance is attributable to many factors, including the introduction of social protection programmes that encourage school enrolment. On the supply side, teachers have benefited from a 15% increment in basic salaries.

Gender inequality remains a problem despite the improvement. Gender disparities exist with respect to access to credit, health, education and land, as well as participation in decision-making. In the 2012 parliamentary elections, 29 seats out of a total of 275 (10.5%) went to women. Although this represents a slight increase over 2008 (8.7%), the proportion remains low, considering that women made up 51.3% of the population in the 2012 census.

Ghana has undergone various programmes and strategies to reduce poverty and deprivation among her citizens. Currently, the most important and significant is the “Millennium Development Goals” which is being used as the yardstick to determine the well-being of not only Ghanaians.

District, Municipal or Metropolitan Assemblies are expected to use their share of the Assemblies Common Fund (disbursed from the central Government) to initiate community projects that will be of benefit to the local residents. Because of this widely held view, the welfare of communities located close to the drilling and production site are rarely discussed at the nation level.

Impact on the local population

Talking about the natural resources extraction, the most important element to determine the viability of the project is the benefits you can obtain from it. The oil industry is considered to be presenting opportunities and threats to local residents living close to production sites.

Opportunities: employment, business avenues, training, improved access to infrastructure and social amenities in general.

Threats: cultural changes, increased population, moderation to existing infrastructure, increased cost of living, changes in the local economic activities like fishing and farming and the biophysical environment as a whole.

When the oil production started in the Jubilee field in December 2009, many people hoped for better living standards and development. But some worried that the country did not have the necessary law to properly manage the new revenues.

The Government has showed ambitious plans for the sector, at least on paper, a picture of 90% participation level for citizens in Ghana by 2020 in all aspect of the oil value-chain.

The key policy objectives are/ maximising the use of local expertise, goods and services, job creation for people, businesses and financing in all aspects of the oil industry value-chain, and retention of the benefit within Ghana.

The reality is that offshore oil extraction activities have made necessary to ban fishing in the area, the main occupation of most residents. This implies that their major source of livelihood has been taken from them. Most of the people engaged in fishing-related activities have gone into trading and farming and some had to sell their land to be able to cope with the shocks for the short-term.

New opportunities of livelihood for residents have to be provided because the oil operations will last a long period of time. One way to compensate could have been an agreement for the oil companies to give employment to the residents.

It would be interesting that the government set a micro credit scheme up for the people to apply for loans to expand their small scale businesses. The management of this scheme should be entrusted into the hands of an independent body under the supervision of a board.

The local residents should be encouraged to form cooperatives to go into farming of non-traditional export crops on large scale. The assurance that the area would be experiencing an influx of migrants offers a good prospect for a market. For those who would be doing fishing alongside any other business, there should be collaboration between the fishermen and the oil companies.

The oil companies (Tullow Oil and Kosmos Energy) operating in Ghana are happily announcing already that 80% of their staff are Ghanaian but the Government should be looking at the kinds of jobs the Ghanaians employed in the industry are occupying. Ghanaians should not be employed providing support services like driving, controlling traffic on the roads and selling food to labourers.

Actually, the oil companies operating in the country are mainly using imported expertise and equipment and the argument has often been that Ghana does not have the expertise in critical aspects of the value-chain.

Ghana has had a refinery and a Petroleum corporation for ages and these institutions have, over the years, employed Ghanaians trained in the country as geo-scientists, petro-physical engineers, reservoir engineers and other specialists to other oil-producing, a good number of whom are providing highly technical services in oil-rich companies.

There are also a lot of young Ghanaians who have acquired technical skills outside the formal educational system and are also hoping to get jobs in the industry.

Other aspect of the impact of the oil industry is the high rent apartment in the cities that make that most ordinary people can afford. For many it has meant moving several hours drive out of the city.

There is also a need of adequate funding for training of fishermen in rescue operations to enable them provides a rapid response to their colleagues in times of danger at sea. This gives an indication that there are no procedures to follow in an event of any form of agitation by local residents.

The government of Ghana urgently needs to complete its Public Investment Program, which is to serve as the basis for the Public-Private Partnership Policy approved in 2011. Several initiatives have been already announced as the rehabilitation of the Takoradi port and three major airports.

Impact on the environment

Oil production comes with a huge environmental challenge and negative consequences for the climate change. Besides, unlike land, defining property rights for the use of the sea is rather difficult.

The Environmental Impact Assessment is mandatory to inform policy directions. Tullow Ghana Limited has conducted its EIA on the Jubilee field in a bit to predict, describe and assess the impact that may result from the project activities and identify mitigation measures and management actions to avoid, reduce and compensate for significant effects, and where practicable, to maximize potential impacts and opportunities.

It is evident that the company proposes a soft assessment because it has vested interests. From the conclusions of the EIA, it can be argued that the effect the oil production will have on the coastal residents is minimal in all the fields (discharges, air and water quality, waste management, oil spills, fishing, community support) and therefore makes the extraction justifiable.

Under the Ghana Environmental Assessment Regulations, the joint venture of companies operating in the Jubilee field are required to submit an Environmental Impact Statement (EIS) describing the project and providing an assessment of the potential impacts from the proposals and the proposed measures to be taken to manage these impacts.

Again, the conclusion suggests that the overall impacts are not significant. This is contrary to the generally held view that the oil production will negatively affect the general coastal communities. One major potential negative effect stakeholders have expressed concern on is the likelihood that the oil activities will curtail fishing which is a major source of livelihood.

In view of this, Tullow has proposed for the establishment of a safety exclusion zone which will be legally enforced to reduce the risk of collision at sea. Tullow further argues that the exclusion zone it has called for would be relatively small and can therefore not affect catches as it is being tooted.

Tullow states it has its own responsibility package which would implement to help the local communities affected by their operations. Programmes to be considered include provision of portable water, school buildings, micro credit facilities and development of recreational parks. According to the company, the social responsibility holds a positive prospect with the local people.

However, concerns raised by stakeholders on the relationship between companies and local people show a different thing. CSR is failing at a time it is demanded to be taken serious. The lack of a clear definition makes it difficult to access the truth or otherwise of what companies seem to be professing and the likelihood of failing to deliver on their promises becomes high.

Ghana suffers from environmental degradation, which is affecting livelihoods in rural and urban areas and increasing vulnerability to human and natural disasters. The implementation of an environmental policy or law in a country that avoid it requires power and a political will which cannot be influenced. Transnational corporations which include oil companies sometimes defy national laws and escape prosecution as a result of the power they wield.

The current environmental law in Ghana does not adequately address issues on oil extraction since this is the first time commercial activities of oil and gas is being done in Ghana. In view of this government has now laid a bill in parliament to be passed into law. The absence of this law gives oil companies a breather and an opportunity for irresponsible behavior.

The Petroleum Exploration and Management Bill will help preserve the country's marine resources and impact significantly on development of the fishing industry, and that living conditions of coastal dwellers will be improved.

Tacking oil waste

A lot has been said about what the oil money should be used for but not enough about how responsive the country's laws and institutions would be in the event of an oil-spillage.

But whether there is an accident or not, waste is generated by the oil industry always. Waste is generated during the exploration, development and production of crude oil.

Waste generated from oil exploration has to be managed somehow or the environmental consequences could be terrible because hydrocarbon waste and waste water could cause land, water or groundwater contamination. To manage the waste requires state-of-the-art technology that not only separates the contaminated oil from waste water but treats the waste for either reuse or safe discharge onto land.

Expectations

Ghana is considered to be one of the few African countries that can achieve the middle income status and half poverty by the year 2015. Poverty levels have fallen significantly from 52% in 1990 to 28, 5% by the end of 2009. In any case, it is necessary to take into account that the great economic growth of the last 3 years does not necessarily mean the per capita income growing and unfortunately there are still many who live on less than 2 dollars per day.

Ghana is considered as one of the few countries with a good investment climate due to its accelerated policy of divestiture, capital account liberalization, tax incentives and domestic financial reforms.

Ghana has become a member of the Extractive Industry Transparency Initiative (EITI) in a bid to ensure transparency in the payments made to government but even though Ghana is a signatory to the EITI, the right to information bill has not passed to make it mandatory for public officials to make information available to ordinary citizens.

Transparency and corruption

Ghana has a fairly transparent society compared to other countries dealing with oil and Ghana's economy is more diversified than other oil producing countries in Africa, the oil revenues expected only represents 6% of their economy (Nigeria oil revenue represents 92% of the economy and Angola it is almost 100%). It indicates they won't be dependent on oil revenue and are in a far better position to manage it more wisely.

International observers noted that the last elections in December 2012 were relatively free and fair which is considered indication of further strengthening of democracy in Ghana. However, the New Patriotic Party has contested the election results and petitioned the Supreme Court for redress. This issue has divided the country on political lines rather than ethnic lines. The slight risk of political destabilisation of the country would be greatly reduced by an early resolution to the court case.

Ghana has occupied the 62-70 position out of 183 from 2005 to 2012 in the corruption perception index of Transparency International (most widely used indicator of corruption worldwide). Ghana has always took the positions from sixth to third African country less corrupt.

Oil production began in 2011 which makes it is too soon to assess transparency in the oil industry because it needs to be researched deeply. The Ghana's Petroleum Revenue Management Act (2010) is considered strong and transparent by international observers to try to avoid corruption. It provides for the creation of a Stabilization Fund and a Heritage Fund.

Despite significant progress towards most of the Millennium Development Goals the country continues to be challenged by reducing child-mortality, improving maternal health and the sanitation component.

Conclusions

The results from the data gathered showed that there is a strong commitment on the part of government, oil companies and other stakeholders to turn the expected oil industry revenue into benefits for the local population.

However, the opinions expressed by the local residents shows a lot needs to be done for them not to be worse-off. It is expected that while the local population receives the needed attention, measures would be put in place to minimize or avoid any environmental problems that may occur.

The oil industry is a sophisticated business area; hence doing business in the industry cannot be business as usual. Decisions on how to spend the country's increasing oil revenue, projected at several billion US dollars over the next two decades, will be crucial to future economic transformation.

Key legislation such as the Petroleum Exploration and Management Bill, the local content bill and local content participation policy framework, among others, should be passed as soon as possible in order to manage the oil revenue in the best way.

The number of Ghanaians employed by the companies involved in the oil industry in Ghana is not as important as the quality of job positions they hold. The Government has to attract the Ghanaians working abroad with great expertise in the oil industry and it is urged Ghanaians students take oil-related courses to enable them to secure high-profile jobs in the industry in order the International companies don't bring in expatriates to fill positions that Ghanaians are perfectly capable of occupying.

Beyond the issue of personnel is the issue of supplies companies. Considering that the country does not manufacture much oil at the moment, much cannot be said for ensuring that oil exploration, drilling and production equipment are procured locally. There is the need to strengthen the business environment in order to improve the competitiveness of local business.

The European Commission has recommended Ghana to make a concerted effort to "think big" and provide more direct and proactive leadership to the energy sector given its importance to boosting economic growth.

One idea could be pouring more of the oil money into the agricultural sector to put people to work. Agriculture made up about 16% of Ghana's GDP in 2011 and that's where a big portion of the country's permanent jobs are.

A fiscal regimen is only as effective as the combined administrative capacity of the government institutions charged with enforcing it. The Petroleum Revenue Management Act (PRMA) is Ghana's principal law governing the use of petroleum revenues.

Income taxes and participating interests represent the biggest components of government revenue but experience in Ghana shows that the timing of income tax collections on petroleum production can be hard to predict in part because taxpayers have claimed large deductions for loss carry-forwards, inter-company interest, and other tax planning mechanisms.

All the various committees provided for by law should be put in place, and strengthen institutions like the Petroleum Commission (including the issuance of permits and the regulatory function over

the industry) and the Unit of the Ghana Revenue Authority involved in monitoring production and the determination of revenue has to be transparent and be demanding with the Government decisions.

The first phase of deep-water exploration and appraisal is ending in Ghana (2007-2013). Re-starting exploration will require issuance of new licenses again for 7-year exploration period built into Ghana's petroleum agreements. The processing of licences and negotiations of contracts in Ghana must be made transparent through competitive bidding.

The country can benefit fully from its oil resources if proper regulatory frameworks and policies are put in place. There is a need of adequate funding for oil regulatory institutions and not only funding coming from the government which would make the process dependent.

It is legally binding for the oil companies to treat their waste, if they don't do it in the countries where they are operating it is allowed managing it to the neighbouring countries, fortunately the major players of the oil industry in Ghana use the services of a Ghanaian company.

It is very important for the economy of the country to support the Ghanaian entrepreneurs and not to allow the outsourcing of those services to other countries. The promises of the government to support these initiatives should not stop and equally to provide the financial help to the Ghanaians companies to take the major contracts coming from the oil industry.

What should not be missing is a special fund set by the Government to deal with any negative effects the local residents may suffer from should there be any unexpected occurrences.

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