



GOLDEN PROFITS ON GHANA'S EXPENSE

- An example of incoherence in EU policy



CONCORD
DANMARK

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DanWatch is a Danish corporate watchdog that investigates and monitors companies' impact on humans and the environment globally. The aim is to motivate companies to act socially responsible.

DanWatch is administered by a foundation and is independent of political, governmental and private interests.

DanWatch

Nørregade 15, 5th floor
DK -1165 Copenhagen K
Denmark
www.danwatch.dk
info@danwatch.dk



Concord Danmark is an umbrella organization working to fight poverty at EU level. The goal is to achieve an effective and fair development policy founded in the civil society.

Concord Danmark is the Danish platform of Concord Europe, which represents more than 1600 development and aid organizations in Europe.

Concord Danmark

Fælledvej 12
Global Platform, 3rd floor
DK – 2200 Copenhagen N
Denmark
www.concorddanmark.dk
info@concorddanmark.dk

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Front page photo: DanWatch

SUMMARY AND KEY RECOMMENDATIONS



In Ghana the livelihood and social security of local communities are dependent on the mining industry. Tarkwa (photo) is one of Ghana's numerous mining cities. Approx. 40.000 people live in Tarkwa. Photo: DanWatch

The African continent contains a large proportion of the world's metal and mineral reserves, and African countries are thus the proprietors of a valuable natural resource. Despite a regular boom in the demand and the prices of these metals and minerals, subsequently followed by a substantial growth in the mining industry, the countries remain amongst the poorest in the world. A main reason is that loopholes in the EU's tax legislation, limited regulation of tax havens and lack of transparency in accounting standards for multinational companies allow massive illicit financial flows from Africa to tax havens in Europe and across the rest of the globe.

With the gold mining industry in Ghana as a specific case study this report puts focus on the methods with which multinational mining corporations exploit natural resources in Africa without the local population benefitting from it. The report also explains how these methods are linked to European tax havens and accounting legislation.

New research shows that over the period 1970-2008, Africa lost US\$854 billion in cumulative capital flight - enough to wipe out the region's total outstanding external debt and

leave US\$600 for poverty alleviation and economic growth. From 2000 to 2008 the illicit outflows from Africa accelerated by 25 percent coinciding with boom in natural resource prices and international trade¹. On a global scale approximately US\$1 trillion is now illegally moved out of developing countries every year, about two thirds of it due to commercial tax evasion². The capital flight from poor countries amounts to eight times total global development assistance.

European based secrecy jurisdictions account for at least 70 percent of tax haven-related activities in the world³.

The EU has committed to ensure that its various policies do not undermine social and economic progress in developing countries. The principle of coherence is enshrined in the Lisbon Treaty and in 2005 Policy Coherence for Development (PCD) was identified as a pioneering concept for attaining the Millennium Development Goals (MDG's). However, European policy on taxation for multinational corporations shows an example of a crucial gap between intentions and reality.

Multinational mining corporations use aggressive tax planning and trade mispricing to evade tax payments in African countries. The EU's accounting legislation does not require international corporations to disclose their profit in the individual countries in which they operate. It is thus impossible to track if corporations are transferring profits to tax havens to avoid paying taxes and royalties. By manipulating the prices of sales and purchases, many corporations reduce their tax liable profits in African daughter companies and move the profit to tax havens using sophisticated accounting and internal trading techniques. This means that money which could have been spent on the development of poor African mining countries is just creating even bigger profits for the large international mining corporations.

Sustainable tax policies and administration in developing countries can generate revenues which by far exceeds global development assistance. Combating illicit financial flows and capacity building for tax collection in developing countries could thus be a decisive factor in achieving the MDG's⁴.

What can be done?

- So called "country-by-country" reporting should be implemented in the European and international accounting regulation. This would make it possible to assess where multinational corporations make their profits and thus create an adequate basis for just tax collection.
- Sanctions for uncooperative tax havens and their users should be implemented.
- Capacity building for tax collection in developing countries should be implemented in the EU's development instruments and country strategy papers.
- Combating illicit financial flows from developing countries should be compulsory in the EU's PCD work program and efforts to achieve the MDG's.
- The scope of the EU savings tax directive should be broadened to include automatic exchange of information on income and interest on savings for all legal entities including multinational corporations.

MINING WITHOUT DEVELOPMENT

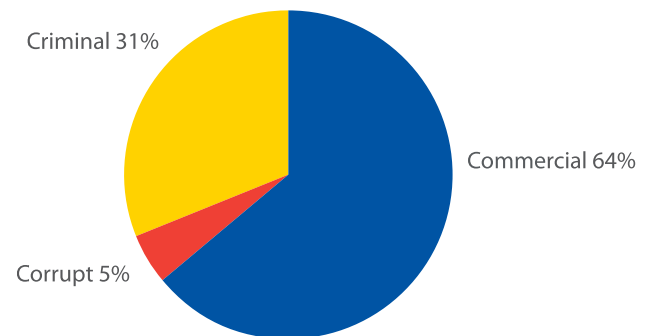
32 of the 40 countries which the World Bank has categorized as "Heavily Indebted Poor Countries" are situated in Africa⁵. Many of these countries represent a large section of the world's mining production. About half of the world's cobalt, diamonds and platinum are retrieved from the African underground, and Africa is an important producer of gold, aluminium and uranium. 16 of these countries in Sub-Saharan Africa receive more than ten percent of their revenue from mining operations⁶. The mining industry thus has the potential to significantly move forward development in these countries. Minerals and metals are to a large degree extracted by multinational mining corporations, that wants to maximize their profits. The corporations move most of their profits out of Africa to avoid paying taxes, mainly through trade mispricing.

The mining industry in the African countries is characterized by poor integration with the rest of the "countries" economy. Modern mine production demands expertise and machinery, and therefore the international mining corporations bring in their own specialized employees. The machinery is imported from the global market, and for many of the countries with mine production the corporations send the minerals and metals out of the country as ore and minimally processed products, so that most of the manufacturing, and thus the value adding, takes place outside the African continent⁷. Taxation is thus one of the few options available for the countries to receive benefits from allowing mining operations to take place.

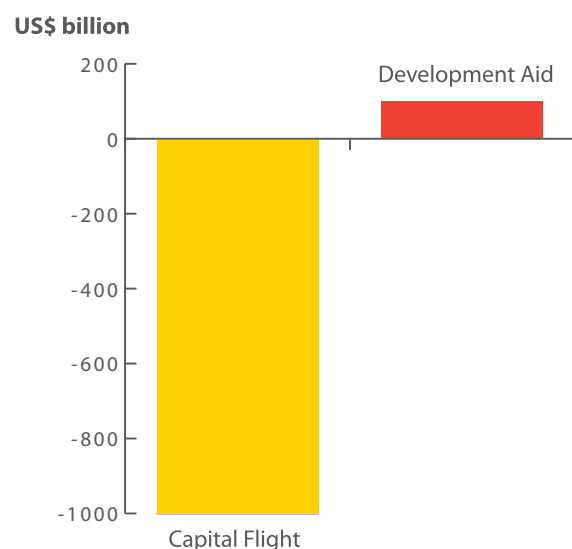
Despite a regular boom in mineral prices and a hefty rise in profits in the mining industry from 2002 to 2006⁸, African mining countries have not experienced any increase in revenue of their minerals and metals. With capital flight and exploitation of the tax systems the international mining corporations minimize their tax contribution to the African countries. From 2000 to 2008 the illicit outflows from Africa accelerated by 25 percent coinciding with a boom in natural resource prices and international trade⁹.

On a global scale approximately US\$1 trillion is now illegally moved out of developing countries every year, about two thirds of this due to commercial tax evasion¹⁰. This amount is eight times the US\$120 billion total global development assistance provided in 2009¹¹. Commercial capital flight accounts for about two thirds of the illicit flows and as this money is transferred illegally it cannot be taxed. Consequently, developing countries are left without a part of the profits.

Capital Flight from Developing Countries: Total amount: US\$1trillion per year



Source: Eurodad et al. 2008; Global Financial Integrity 2010



Source: Global Financial Integrity 2010; OECD 2010

Sustainable tax policies and administration in developing countries can generate revenues which by far exceeds global development assistance. Combating illicit financial flows and capacity building for tax collection in developing countries could thus be a decisive factor in achieving the MDG's.

METHOD



Peter Khallash Bengtsen and Jeppe Wohlert (photo) from DanWatch were in Ghana in September 2009. Photo: DanWatch

This report is a result of a field study in Ghana done by DanWatch in the autumn of 2009¹² and desk studies by DanWatch and Concord Danmark. The desk studies are based on reports from Ghanaian and international NGO's, ISODEC, Christian Aid, Tax Justice Network, and interviews and correspondence with resource personnel on the field.

As the mining corporations' minimal tax returns is partly due to sub-optimal tax agreements and in part due to accounting

techniques, it is not the purpose of this report to find specific examples of illegal tax avoidance, but to give an overview of taxation structures and accounting techniques which diminish the African mining countries' profit of the mining operations.

These findings are linked to the EU's policies on tax regulation and its commitments to ensure its various policies do not undermine social and economic progress in developing countries.

Policy Coherence for Development (PCD)

The principle of coherence is enshrined in the Lisbon Treaty and in 2005 Policy Coherence for Development (PCD) was identified as a pioneering concept for attaining the Millennium Development Goals (MDG's).

The European Consensus on Development

"The EU is fully committed to taking action to advance Policy Coherence for Development in a number of areas. (...) To make this commitment a reality, the EU will strengthen policy coherence for development procedures, instruments and mechanisms at all levels, and secure adequate resources and share best practice to further these aims. This constitutes a substantial additional EU contribution to the achievement of the MDG's."

The European Consensus on Development is a joint statement by the Member States, the European Parliament and the European Commission signed in 2005.

The Lisbon Treaty's Article 208

*"Union development cooperation policy shall have as its primary objective the reduction and, in the long term, the eradication of poverty. **The Union shall take account of the objectives of development cooperation in the policies that it implements which are likely to affect developing countries.**"*

GOLDEN PROFITS ON GHANA'S EXPENSE



James Sarpong's farmland and his former home is buried under the mountain of waste rock behind him. He is still waiting for his compensation. Photo: DanWatch

Ghana is one of the African countries where the mining industry plays a key role in the national economy. Revenue from the export of minerals and metals in 2007 made up 43 percent of the total export revenue¹³. Bauxite, manganese, diamonds and gold are all extracted in Ghana. In 2007 Ghana produced 83,6 tons of gold¹⁴.

The mining industry contributes to the Ghanaian economy, but the mining operations have crucial socio-economic and environmental consequences for the country's population. Often entire villages are moved or have to find new means of income, because their farmland is taken over by the mine. The Ghanaian government has admitted that 20 percent of the country is laid out as concessions to the mining corporations. In certain regions with high amounts of mining activity, that number gets as high as 70 percent¹⁵.

These effects ought to be assessed in the context of the mining industry's economic contributions to the country. In 2006 less than ten percent of Ghana's total tax revenue came from the mining industry¹⁶ and the mining operations' contribution to Ghana's GDP is estimated at five percent¹⁷. According to Steve Manteaw, one of Ghana's leading experts on the mining operations, studies have shown that mining operations also have a negative effect on the environment which equals

between four and ten percent of the country's GDP. Thus, taking the mining operations' environmental consequences into perspective, the economic effect upon Ghana's GDP is in fact negative¹⁸.

"If we did a proper cost-benefit-analysis of the mining industry in Ghana, taking into account the environmental and social cost, we'd be getting nothing."

Daniel Owusu-Koranteng, President of WACAM

WACAM is a Ghanaian organization helping communities affected by mine production. The main challenge is that the mining industry takes over farmland where people live and work. The mining industry primarily uses a highly educated workforce, which is brought into the country from abroad and therefore causes unemployment in the mining areas.



These local farmers have themselves rebuilt their village after the mining company Anglo Gold Ashanti flattened the earth.
Photo: DanWatch

Like the majority of African countries Ghana offers mining corporations' tax advantages. They are exempted from duties, for example on fuel and the import of machines, they pay a lower tax percentage, and they can reduce their tax base through special deductions. These advantageous conditions are established to attract foreign investments to an industry arked by considerable fluctuations in the price of metals, large expenses linked to exploration and creation of new mines, and - specific for mining operations in Africa - political and economic instability. Mining corporations naturally avail themselves of the tax incentives they are offered by Ghana in an attempt to attract foreign investors to the mining sector. But through aggressive tax planning these corporations further diminish their tax payments.

Anglogold Ashanti Ghana Ltd. is one of the main mining corporations operating in Ghana with a production of 17.6 tons gold a year.

The Cooperation is a daughter company of Anglogold Ashanti headquartered in Johannesburg, South Africa, but its ordinary shares are also listed on stock exchanges in London, Paris and Ghana, as well as being quoted in Brussels in the form of International Depositary Receipts (IDR's).

Source: CHRAJ report 2008 – numbers from 2007

THE METHODS OF TAX EVASION AND WHAT THE EU SHOULD DO ABOUT THE PROBLEM



AngloGold Ashanti has its own runway in connection with the mine. From here Ghana's gold is transported out of the country to a gold refinery in South Africa. Photo: DanWatch

Moving profit to tax havens

European and international tax regulation does not require of multinational corporations that they report their profit in the individual countries in which they operate. They merely have to disclose a collective annual report for the whole group. It is thus impossible to track if the corporations are transferring profits to tax havens to avoid paying taxes and royalties.

The African countries typically collect between 30 and 35 percent in corporation taxes from the mining industry. Ghana only collects 25 percent of the mining corporations profits in corporation taxes²⁰. However, many corporations manipulate their profits in Ghana so they appear lower than they really are, sometimes even making them so low that they are exempted from paying any corporation tax at all.

According to the Tax Justice Network (TJN)²¹, there are more than 70 tax havens around the world, half of which are in Europe or overseas European dependencies. European based secrecy jurisdictions account for at least 70 percent of tax haven-related activities in the world²².

The EU should take immediate action to implement sanctions for uncooperative tax havens and their users.

Transfer mispricing

Corporations can move their profits to countries with low or even no taxation. The most commonly used method for moving profits is transfer mispricing. This method works by corporations declaring lower prices on their sales or higher prices for their purchases. Hereby the corporations' profit and taxation base is lowered.

For example, a mining corporation's expenses in Ghana on wages and fuel supply are capital to the Ghanaian economy. But expenses on e.g. machines and materials which are bought abroad, add nothing to the Ghanaian economy as these are often exempt from VAT (value added tax) and duties. Mining operations demand a high level of specialized equipment, which is imported from the global market, often through the corporation's mother company. The sale of products and services among associates of the same international corporation allows ample opportunity to manipulate prices. If a daughter company in Ghana pays unnaturally high prices for products bought through the group they can declare higher expenses and reduce their profit. This profit instead ends up with the mother company, but if the latter is situated in a tax haven the corporation as a whole can reduce its tax expenses.



With projects like this mill, mining corporations attempt to compensate the communities for among other things the loss of farm land; but in Tarkwa the local farmers are not content. Photo: DanWatch

Transfer mispricing is illegal, but it is difficult for African tax authorities to control these dealings. In part because it is highly resource demanding to cross check the mining corporations' declarations of income and expenses and in part because it is difficult to estimate the real prices of specialized equipment.

For example, mining production applies geological research and advanced technology. Both are immaterial products whose price it is difficult to estimate. Companies' 'intellectual property' can be placed anywhere that is especially advantageous for tax benefits. Intellectual property can be trademarks, patented technology or business secrets. International corporations can establish a daughter company in a tax haven and transfer the property rights of intellectual property to this daughter company²³. When other daughter companies buy this intellectual property, perhaps even at inflated prices, the profit is effectively moved and taxation avoided.

Ghana is amongst the ten low-income countries in the world that lose most of their entitled taxation as a consequence of price fixing. Since 2007 Ghana has thus lost approximately 36 million euros²⁴. Transfer mis-pricing constitutes the main part of the illicit commercial capital flight from the developing countries, at about 89 billion euros.

Royalties

The mining corporations pay a certain percentage of the value of extracted metals and minerals in the form of royalties to the country. Royalties, as opposed to income taxation, are independent of the posts of extracting these metals. The corporations have to pay royalties of the value of the metals and minerals, even if the costs of extraction exceed this value. The

Lost Royalties

From 1990 to 2007 Ghana has foregone royalties corresponding to:

US\$ 388 million if mining companies had paid six percent rather than three percent.

US\$ 1.163 million if mining companies had paid 12 percent rather than three percent.

This sum by far exceeds the remission of debt Ghana has been granted in the same period.

Source: Thomas M. Akabzaa & Charles A. Ayamdoo 2009, "Towards a fair and equitable taxation for sustainable development financing in Africa", p. 25

royalty rate for mining production varies within the African countries from two percent in the Democratic Republic of Congo to ten percent in Malawi.

In Ghana the royalty rate is calculated so that the minimum rate is three percent, but is raised accordingly with the corporations' profit up to six percent. Before 2006 the scale went up to 12 percent. With the methods described above the corporations can manipulate with their profit so that they ensure a low royalty rate. In practice no mining company has ever paid more than three percent in royalties²⁵.

Stability contracts

In Ghana the mining corporations have the opportunity to negotiate stability agreements. These agreements can ensure that in a period of up to 15 years the corporation is exempt from changes in the law which might affect their activities negatively. Corporations that invest more than US\$500 million can negotiate further tax advantages²⁶. In this manner the largest corporations can gain further tax advantages, despite the fact that they have the highest profits, and are the least integrated with the rest of the Ghanaian economy.

In its original mining law Ghana collected an extra tax from windfall – unexpectedly high profits. But with the mining law of 2006 this tax was abolished. Today Zambia is the only African country which has a special law concerning windfall and taxes for variable profits. The mining corporations are strongly opposed this type of taxation - they want tax advantages to reduce the risk of operating in the mining business, but refuse to share profits related to variations in prices and costs with the African states²⁷.

International tax regulation

Several international institutions are aware of the inconsistencies between taxation and development and the challenges of taxing the international corporations.

As pointed out in the introduction of this report the majority of the capital flight from the developing countries occurs through illegal methods, e.g. price fixing. As described above the tax avoidance takes place in part through methods which are not directly illegal, through advanced corporate structures and accounting techniques. It has been estimated that multinational corporations annually deprive developing countries for US\$ 160 billion in tax revenues²⁸.

The current international tax regulation frame work makes it impossible to estimate whether the corporations are paying a fair amount of tax to the developing countries, because they are only obliged to produce an annual report which covers the entire corporation group. Annual reports per country, called country-by-country reporting would provide governments, populations and NGO's the opportunity to evaluate the corporations' tax contribution. It is the International Accounting Standard Board (IASB) that decides the international

Financial Secrecy Index

Tax Justice Network (TJN) monitors the degree of financial secrecy in jurisdictions across the globe using the so-called Financial Secrecy Index (FSI). FSI creates a ranking which identifies the jurisdictions that are most aggressive in providing secrecy in international finance, and which most actively shun co-operation with other jurisdictions. It attaches a weighting to each jurisdiction, according to the scale of cross-border financial services activity that it hosts.

There is a tendency to think of the secrecy providers as "sunny places for shady people" - palm fringed Caribbean islands filled with shady law firms, luxury yachts and the brass plates of anonymous shell companies. The FSI reveals a different story.

European financial secrecy

Secrecy is a central feature of the global financial system. Jurisdictions compete with each other to provide it, in order to attract financial flows. However, as this study shows, financial secrecy has appalling effects elsewhere.

Ten European jurisdictions are in the FSI top twenty

Country	Ranking
Luxembourg	2
Switzerland	3
United Kingdom (City of London)	4
Ireland	5
Belgium	9
Austria	12
Netherlands	15
British Virgin Islands	16
Portugal (Madeira)	17
Cyprus	18

Source: Financial Secrecy Index

<http://www.financialsecrecyindex.com/index.html>

guidelines for financial reporting. The IASB has not yet adopted country-by-country reporting in the standards.

The EU has a key role to play in setting international accountancy standards within IASB. In 2007 and again 2010 the Euro-



Ghana's national administration is severely lacking capacity and resources to handle today's advanced multinational cooperation structures and financial reporting. The condition of the national archives in Accra (photo) illustrates the country's technological deficit. Photo: DanWatch

pean Parliament called for a country-by-country reporting standard for the extractive industry sector²⁹. The EU should push firmly to make the IASB make country-by-country reporting compulsory in the international accounting regulation.

Capacity building

Combating illicit financial flows also has to be done at national level in developing countries. Creating sustainable tax policies and administration in developing countries can generate revenues which by far exceeds external development assistance. Capacity building for tax collection in developing countries could thus be a decisive factor in achieving the MDG's³⁰ and should be implemented in the EU's development instruments and country strategy papers.

EU initiatives

EU is presently taking some very important positive steps forward. The European Commission's so-called Spring Package on development of 2010 contains two initiatives that aim at promoting good governance in taxation as part of development cooperation .

1. A communication which specifically targets promotion of "good governance in taxation as part of development cooperation"³¹
2. The Policy Coherence for Development work program focusing on five prioritized areas including "Trade and Finance". The work program emphasizes the importance of "effective of EU support for fiscal revenue systems" and "enhanced international cooperation and improved transparency of transnational Enterprises". Particularly (...) the implementation of transparency rules in the extractive sector"³²

REFERENCES

- 1 Financial Global Integrity, 2010: "Illicit financial flows from Africa: hidden resource for development", p. 18 and p. 10-12
- 2 Ibid, p. 1; Eurodad, CRBM, WEED and Bretton Woods Project, 2008: "Addressing development's black hole: Regulating capital flight", p. 7
- 3 Concord, 2009: "Spotlight on Policy Coherence", p. 28
- 4 Danish Institute for International Studies (DIIS), 2009: "Combating Illicit Financial Flows from Poor. Estimating Possible Gains"
- 5 <http://www.imf.org/external/np/exr/facts/hipc.htm>
- 6 Wilson Prichard & Isaac Bentum, 2009: "Taxation and Development in Ghana: Finance, Equity and Accountability. Tax Justice Country report Series", p. 30
- 7 Wilson Prichard & Isaac Bentum, 2009: "Taxation and Development in Ghana: Finance, Equity and Accountability. Tax Justice Country Report Series", p. 32 and Christian Aid, London 2009, "Breaking the Curse: How Transparent Taxation and Fair Taxes can Turn Africa's mineral Wealth into Development", p. 15
- 8 PricewaterhouseCoopers, 2007: "Mine Riding the Wave", p. 32
- 9 Global Financial Integrity, 2010: "Illicit financial flows from Africa: hidden resource for development", p. 18 and p. 10-12
- 10 Ibid, p. 1; Eurodad, CRBM, WEED and Bretton Woods Project, 2008: "Addressing development's black hole: Regulating capital flight", p. 7
- 11 OECD: Net Official Development Assistance in 2009 preliminary data, released 14th of April 2010 <http://www.oecd.org/dataoecd/17/9/44981892.pdf>
- 12 The study resulted in the report: "Unrestrained Consumption – on Africa's expense", April 2010 on which this case study is based
- 13 Thomas M. Akabzaa & Charles A. Ayamdoo, 2009: "Towards a fair and equitable taxation for sustainable development financing in Africa", p. 4
- 14 British Geological Survey, 2009: "World Mineral Production 2003-2007", p. 40
- 15 Thomas M. Akabzaa & Charles A. Ayamdoo, 2009: "Towards a fair and equitable taxation for sustainable development financing in Africa", p. 3
- 16 Thomas M. Akabzaa & Charles A. Ayamdoo, 2009: "Towards a fair and equitable taxation for sustainable development financing in Africa".
- 17 Ghana Minerals Commission 2006 - <http://www.ghanamining.org/ghweb/en/ma/mincom.html>
- 18 Interview with Steve Manteaw, Isodec, 17.09.09
- 19 Open Society Institute of Southern Africa, Johannesburg; Third World Network Africa, Accra; Tax Justice Network Africa, Nairobi; Action Aid International, Johannesburg; Christian Aid, London, 2009: "Breaking the Curse: How Transparent Taxation and Fair Taxes can Turn Africa's Mineral Wealth into Development", p. 21
- 20 Ibid p. 25
- 21 Tax Justice Network (TJN), an independent organisation launched in the British Houses of Parliament (March 2003), is dedicated to high-level research, analysis and advocacy in the field of tax and regulation, www.taxjustice.net
- 22 Concord, 2009: "Spotlight on Policy Coherence", p. 28
- 23 Richard Murphy, 2009: Country-by-Country reporting, p. 21
- 24 (32 million GBP, in the trade between low income-countries and the EU and USA) Christian Aid 2009, "False profits: Robbing the poor to keep the rich tax-free"
- 25 Open Society Institute of Southern Africa, Johannesburg; Third World Network Africa, Accra; Tax Justice Network Africa, Nairobi; Action Aid International, Johannesburg; Christian Aid, London, 2009: Breaking the Curse: How Transparent Taxation and Fair Taxes can Turn Africa's Mineral Wealth into Development, p. 29
- 26 Thomas M. Akabzaa & Charles A. Ayamdoo 2009, "Towards a fair and equitable taxation for sustainable development financing in Africa", p. 17
- 27 Open Society Institute of Southern Africa, Johannesburg; Third World Network Africa, Accra; Tax Justice Network Africa, Nairobi; Action Aid International, Johannesburg; Christian Aid, London 2009, Breaking the Curse: How Transparent Taxation and Fair Taxes can Turn Africa's Mineral Wealth into Development, p. 26
- 28 Christian Aid 2008, Death and Taxes: "The True Toll of Tax Dodging"
- 29 European Parliament Resolution by the Committee on Economic and Monetary Affairs, 7th of Nov. 2007 (B6-0437/2007), and European Parliament report: "Effects of the global financial and economic crisis on developing countries and on development cooperation" (2009/2150 INI) adopted on plenary 25th of March 2010
- 30 Danish Institute for International Studies (DIIS), 2009: "Combating Illicit Financial Flows from Poor. Estimating Possible Gains"
- 31 European Commission: "Tax and Development - Cooperating with Developing Countries on Promoting Good Governance in Tax Matters", COM(2010)163 final
- 32 Commission staff working document: "Policy Coherence for Development Work Programme 2010-2013 SEC(2010)", 421 final, p. 11