

## **Indigenous Knowledge and Transformative Development: Using Proverbs and Taboos as Development Reminders in Africa**

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### **Abstract**

The purpose of the paper is to explore how traditional African proverbs and taboos were used to instill hard work spirit among the community members resulting into transformational development and how the same can happen in today's rural communities in Africa. The paper presents the narratives of selected proverbs and taboos that illustrate how indigenous communities used the meaning embedded in proverbs and taboos to instill the spirit of hard work among the community members especially the young. The study was ethnographic and carried in-depth interviews with three elderly persons of the Banyankole tribe. The participants were purposively selected and several informal interviews were held in period spanning six months. Findings indicate that Indigenous African proverbs and taboos are loaded with a lot of meaning. They are told to community members at an early age and members grow knowing and respecting them. They are not written but yet respected and their impact is strong among the community members. Proverbs and taboos are inseparable from the behaviors and attitudes of communities and are fundamental to most actions of the community members hence they can be used for transformative development. The paper concludes that there is a need to integrate indigenous knowledge in community interventions aimed at transformational development because most members of the communities are aware of them and respect them. Transformational development can only be meaningful if the beneficiaries respect and are bound to it as they are to proverbs and taboos.

**Key words:** Indigenous knowledge, Africa, Proverbs, Taboos, transformational development.

### **Introduction**

The concept of development has been around for some time. Development is largely determined by the rich who set up the standards in the language and currency they understand. For a long time, countries are classified as developed or underdeveloped countries. Many countries have registered an improvement in their development path though with varying degrees of success. The World Bank (2017) posits that in the past twenty years, socioeconomic indicators around the world have improved. That there has been an improved use of technology, access to capital and world markets that enabled economic growth however that some regions seem to have been left behind, and they are still facing violence, slow growth, and limited opportunities for advancement.

Among the many interventions put in place by development agencies, people's knowledge, skills and their environment have been left out making development strategies top down and less pro-people. For a long time, the world has been run by external forces that never consider specific needs of the beneficiaries. Many communities do not understand the issues of globalization and regionalization that seem to be key ruling principles of contemporary living. This trend resulted in policies that communities do not own but are made to subscribe to against their wish. Pieterse (2010:2) observed that "globalization and regionalization are overtaking the standard unit of

development, the nation. International institutions and market forces are over taking the role of the state, the conventional agent of development”. Pieterse (2010) further interrogates the issue of development against the backdrop of whose development and modernity one should follow. In many cases we have witnessed people from western economies collecting material culture items from the so-called poor economies and one wonders of what value do such artifacts carry and of what interest are they to the developed economies? Pieterse (2010:2) argues that “Westernization no longer seems compelling in a time of revaluing local culture and cultural diversity”.

It becomes a puzzle as to why people from technologically advanced economies which seem to have devalued indigenous items would want to collect indigenous items of undeveloped communities. Therefore, it is important to interrogate the whole concept of development more especially the indicators that are not homegrown. The common indicator of measuring poverty has been tagged on people living on less than \$1.90a day (The World Bank, 2017) resulting in an estimated 766 million people, or 10.7 percent of the world’s population, to have been living in extreme poverty in 2013. The sustainable Development Goals (SDGs) Goal 1 aims to end poverty in all its forms by 2030. This will be a great achievement to world population specially the sub-Saharan population that still has its 41% of the population living under extreme poverty however, this is bound to happen if development approach embraces indigenous forms of development theories. In African context, even today in the 21st century, people do not measure their wealth basing on a market economy. They grow their food, get milk from their own animals, get fruits and vegetables that grow naturally and organic. All these valued are more than 1.90 dollars a day. This means that the measure of 1.90 dollars a day does not necessarily true. The issues of development therefore and the challenge goes to the planners who are supposed to put in place basic other infrastructure in regard to health, education, security, transport and communication which communities cannot afford as individuals.

This explains why development agencies such as Word Bank and UNESCO are now recognizing cultural diversity as a factor of development (UNESCO, 2005). UNESCO argues that culturally embedded development activities help people to retain their local knowledge that they use to create employment and becomes a mainspring for sustainable development for communities, peoples and nations. Whereas UNDP has worked with the theme of human development for several decades and developed a characteristic thread in all its approach of development as freedom of choice and building people’s capacity to choose (UNDP (2004); UNPD, 2005; UNPD 2006; UNPD 2007; UNPD, 2009; Alkire,2010), many developing economies have not facilitated communities to make their own decisions. Ban Ki-moon (2016)observed that societies across the world are facing many complex and interwoven challenges—poverty, inequality, environmental degradation, demographic change, discrimination and violence—that threaten our efforts to enable people everywhere to live a peaceful, decent and dignified life on a healthy planet. Consequently, the 2030 Agenda for Sustainable Development emphasizes that countries should achieve transformational change that would lead them to sustainable development. A change that would transform countries positively whereby development results are achieved and sustained over time (United Nations Development Programme (2011).

## **Methodology**

The study was ethnographic and carried in-depth interviews with three elderly persons of the Banyankole tribe. Participants of the study were selected purposively and several informal interviews held spanned a period spanning six months. The interviews involved face to face and these were followed with telephone interviews during the writing period for more clarification. The study employed ethnography research design because the information needed is among the tacit knowledge that is continuously getting extinct. Proverbs and taboos are social interactions, behaviours, and perceptions that occur within groups, teams, organizations, and communities (Reeves, Kuper, & Hodges, 2008), hence ethnography was appropriate to understand the meaning embedded. Furthermore, as Bronislaw Malinowski and Alfred Radcliffe-Brown used ethnography while documenting social arrangements and beliefs of rural communities with whom they lived for a long time (Reeves, Kuper, & Hodges, 2008; Mulemi, 2008) engaging with the three respondents yielded good results for the study. The study was carried out among the Banyankole tribe in South Western Uganda. The two participants were living in Kiruhura district as permanent residents while the third participant lives in Mubende district a neighboring district. The study population was the Banyankole people and therefore even if a participant was not living in Ankole region at the time of research but had knowledge believed to sufficient enough was selected as a respondent. The process of collecting data was determined by the availability of the respondent and therefore the researcher employed both face to face and telephone interviews. Emerging patterns from the data were compared with the concept transformational development and conclusions were drawn basing on how such proverbs and taboos could positively influence transformational development.

### Proverbs for Transformational development

A number of proverbs were gathered from the three respondents. The proverbs were intentionally crafted to challenge members of the society to work hard and sometimes to scare members of the community from doing anything that was not accepted in that particular community. Six proverbs were considered to carry message challenging community members to work hard and move to better standard of living. The following are some of the proverbs that the researcher identified as have a transformational development aspect.

Runyankole proverb	English translation
<i>Otomizetahwaikaranga</i>	You cannot rest until you get what you want
<i>Omweremwaanyaataebitakuringunibinurira</i>	A lazy person eats sweet potatoes without sauce claiming that they are after all sweet
<i>Enyonyiyenyegande</i> (engara) <i>temanyaahaeruoburokubwezire</i>	The bird that does not leave its nest will never know that there is plenty of grains(food) outside
<i>Engaboyakyeeritogiheeramwaanaomubazi</i>	You can never depend on donations to feed your family
<i>Mporamporaekahitsyaomunyongororwaahaiziba</i>	To reach your destination it's not only speed but commitment, focus and resilience
<i>Rwamukuruwaawetekutahamushozi</i>	You can't gain fame from your brother's

	wealth. You need to make yours.
<i>Kora turyetigubamwaga</i>	Pressure for work is not mistreatment

**Figure 1**Runyankole proverbs and their English translation

### **Embedded meaning in the proverbs**

1. *Otomizetahwaikaranga*: This proverb challenges individuals not to rest until they have achieved their target. In Runyankole culture, this proverb takes two explanations. The first explanation argues that if your grains have not dried you continue roasting them on fire until they dry to your desired degree. The second argument explains the proverb that if your calf has developed diarrhea you must continue giving it medicine (local herb) until the diarrhea stops. The proverb challenges community members to always aim high to concentrate on what they have and utilize their skills. Naturally a farmer would not rest and let his calf die of diarrhea. He would collect and administer different herbs to make sure the diarrhea of his calf stops.
2. *Omweremwaanyaataebitakuringunibinurira*. This proverb posits that a lazy person eats sweet potatoes without sauce claiming they are sweet because of being unable to prepare it or not having it. The proverbs challenges community members not compromise for less because they do not want to work hard. In Kinyankole culture, a lazy person was despised and had no place in the community. It was a shame for example an adult to eat food at his neighbors' home especially meat when he knows he did not have meat at his home.
3. *Enyonyiyenyegande (engara) temanyaaheruburokubwezire*: The bird that doesn't leave its nest will never know that millet is ready. In other words, if it remains in its nest, it would starve. The proverb challenges members of the community to move out of their comfort zone and look for better opportunities outside. Before formal employment, heads of families would work hard to provide for their families either by hunting, cultivating or rearing animals. Either way it was the responsibility of the head of the family to provide for his family needs.
4. *Engaaboyakyeeritogiheeramwaanaomubazi*. You can never depend on donations and handouts to feed and care for your family. This proverb discourages community members especially the head of families who do not want to work but prefer to depend on their relatives or friends that such arrangement cannot last for long. The proverb encourages every member of the community especially the heads to work hard and support their families with resources they can control. Every house hold was expected to have its food security mechanism. That meant that each household was expected to work hard to make sure there was always enough food for the entire family.
5. *Mporamporaekahitsyaomunyongororwaahaiziba*. The earth worm is a very slow creature. It moves very slowly from one place to the other. It prefers to live in muddy places or near a water source. Whenever its original place runs short of water, it slowly moves to another source. The earth worm would take much time because of its speed. The earth worm flexes its muscles in different sizes and directions and controls the muscles and setae on their segments to move

(Almond 2017). This action displays resilience and commitment which results in its movement from place to place. Like the earthworm is able to move from one place to another, individuals in every community are encouraged to keep trying to reach their desired destinations

6. *Rwamukuruwaawetekutahamushozi*. This proverb encouraged everybody to work and acquire wealth because your brother's wealth is not yours. In other words, no one gains fame by exhibiting his brother's achievement. What your brother has can benefit you by providing you with an opportunity to make yours. It is important for one to own his/her own property/wealth. Traditionally, people inherited property from their fathers and mostly boys who were given shares of their parent's wealth. If one had five boys, each boy would take an equal share and grow it up. In some cases, the capacity to multiply the acquired inheritance would vary from individual to individual. It was possible that although one would equally distribute his property among his children, each was responsible for its multiplication sustainability. Those that would have lost their inheritance due to poor management would not claim their brother's. This proverb therefore challenged individuals to work hard and to try and multiply their inheritance.

7. *Kora turyetugubamwaga*: This proverb challenges every member of the community to participate whenever there was a community call. The communities participated in *burungibwansi*. A member who failed to honor the call, was punished and to the extent of being isolated from the community activities. It was therefore important for any member of the community not to complain whenever asked to participate in any engagement. This communal spirit of Ubuntu was very helpful in making sure that every person was contributing to the well-being of the entire community.

### ***Omukago*: The Taboo that promotes transformational development**

*Omukago* (Friendship) is a taboo with a transformational development message. Friendship is a valued virtue among the Banyankole and other African cultures. Although the concept of friendship is found in all cultures of the world even in the contemporary communities, the foundations of the traditional friendship were highly binding and respected. Today's friendship seems to be based on temporary principles that can be changed anytime depending on how they favour the concerned parties. In the traditional societies, *omukago* was a lifelong experience for two people to become friends, certain ceremonies were performed. The process included exchanging of blood. According to the respondents, the process was witnessed by elders. It involved cutting on the abdomen on each member desiring to become friends, and then rub a coffee bean in each one's blood and swallow it. This made them blood relatives. Such friendship was equivalent to biological relatives.

The other version of friendship among the Banyankole is *okuhaana* (the exchange of cows) *Okuhaana* is the practice where a member of the family gives a cow to a friend who will also give back a cow after a period of time. The cow then assumes the name of the person who gave it. Unlike where cows referred to by their specific names given depending on their colour of the skin such as *Gaaju*, *Siina*, *Mayenje*, *Kyaasha* and others, or according to their character such as *Rugwirararo*, *Ishookye*, *Nturegye*, *Mpara* and others, cows out of *empaano* (friendship cows) were

named after the people who gave them to you. For example, I have several cows under the friendship scheme such as *Kagabokarevuranda* (A reverend gave it to me), *KyanasasiraMinisita* (It was given to me by Minister Nasasira), *Kagabokaprofessa* (A professor gave it to me). Such cows that carry names of the owners give a family pride and extend the perimeters of family relationship. In other wards the cows assume names of the people who gave them to you and such names will run in the lineage of the kraal. The practice of exchanging cows is that after a period of time the person who first received the cow gives back to the later and the practice continues in the two families hence making the bond.

The *omukago* was supposed to be respected and if any of the party of it went against its principles then it was a taboo and referred to as “*okwitaomukago*”. *Okwitaomukago* was when the parties in a friendship would go against the principles of brotherhood and betray one another. It was believed that betraying a friendship would invite calamity and bad luck to one’s family and lineage. Therefore, fear of bad luck to your family and yourself made people committed and respect friendship. It instilled respect in community members and also responsibility because a member who lacks such values was bound to lose friendship. On the other hand, people tried to train their family members with good morals as a prerequisite of attracting certain families as friends. Promotion of morals was important and was reflected in other proverbs such as *akaanakanabagyekaryanabakuru* (a child who washes his/her hands properly joins the elders on the table) was meant to instill good behaviors among the community members. The concept of *omukago* and *okwitaomukago* was a great taboo that each member of the community subscribed to because it determined one’s position in the community.

## Discussion

Achieving one’s target is an important virtue in any sustainable development path. Any organization always works with a vision and mission to achieve. The SDGs targets to have a world free of poverty, hunger, disease and situation where all life can thrive (UN, 2016, Hutton & Varughese 2016). Like the proverb *otomizetahwaikaranga*, we must all have a target and we should not rest until we meet our target. In transformational development, individuals should endeavor to move from one level of development to the other. This involves applying better development strategies that will improve their output. The proverb *otomizetahwaikaranga* therefore becomes very relevant in the development trajectory because it urges members of the community, organizations or countries not to rest until they have met their development target.

Many development strategies emphasis the use of improved technology rather than remaining basic or subsistence. Individuals as well as policy makers should not rest or be lazy to undertake new innovations and creativity. They should not *kuryaebitakuringunibinurira* (eat sweet potatoes without sauce pretending that they are sweet): They should try to access better technologies, services or create employment for their people since World Bank (2017) points that the use of technology, improved markets and better marketing strategies are shaping business today. It challenges communities not to settle for less but to continuously improve their quality and quantity so as to compete in the global market. The African Agenda 2063 (Agenda 2063) argues that one of the factors that will increase the lives and livelihoods of Africans is increasing Africa’s

competitiveness. This will make Africans products raise their value in the global market.

African nations and people must not be *enyegande* (lazy) they must strive for vibrant organizations and groups to compete on the world market. As enshrined in the Agenda 2063, Africa aspires to be a prosperous continent, with the means and resources to drive its own development (Agenda 2063:2-3). The agenda expects that by 2063 African people should have high standard of living and quality of life, sound health and well-being (Agenda 63:3). In other words, African leaders should not wait for a miracle to happen, they should visionary lead their people to transform their lives. African leaders move out of the nests (countries) and look for millet (opportunities) for their people. There is a lot of ready millet in form of global market and international innovations that Africans can tape one without losing the African pride and identity. To tape this market, different countries have formed regional blocks aimed at accessing the global markets. At the continental level, the African Union (AU) supports the coming together of African countries for a common good. Other organizations and groupings in Africa are: Economic Community of Central African States (ECCAS), Economic community of West African States (ECOWAS). New Partnership for Africa's Development (NEPAD), Southern Africa Customs Union (SACU), Southern African Development Community (SADC), United Nations Economic Commission for Africa(UNECA). Others are African Economic Community (AEC), Common Market for Eastern and South Africa(COMESA), East African Community (EAC), Intergovernmental Authority on Development (IGAD) and West African Economic and Monetary Union (UEMOA).

All these integrations are aimed at making Africa not *engara* (lazy) contributor to the global development. Metzger (2008:1) argues that “regional monetary integration offers advantages in terms of monetary stability growth, competitiveness, deepening of financial markets and ownership.” African governments have resolved not to sit back and observe their people fail to realize transformational development and hence are forming regional economic integrations initiatives to compete favorably on the global market. Madyo (2008) confirms this effort when she asserts that African regional integration is a blue print for Africa's strategy towards Africa's development and growth. Of recent, African governments are striving to be self-sustaining. (Kabumba 2005; Ashurst & Mbithi, 2010). Furthermore, Kabumba (2005:3) argues that “African states, together with non-state sectors/actors of all kinds, should devise means and means of sharing national wealth transparently and equitably” More so, Kabumba further argues that development partners and friends of Africa should encourage Africa to be self-reliant because *engaboyakyeeritogiheeramwaanaomubazi* (You cannot depend on donations). It is also important to realize that sustainable development happens when there is freedom of expression of choices for all people in society (UNDP, 2009; Todaro & Smith, 2003). Ashupst&Mbithi (2010) report that during the meeting by the Alliance for a Green Revolution in Africa (AGRA), it was observed that there is a need to improve productivity among African small holders. This clearly shows an effort to move away from depending on donors – *engaaboyakyeeri* and depend on local products by members of society. It is therefore very important that Africa can no longer depend on external donor funds. It has to utilize its indigenous resources and processes.

The question is how can this be achieved? *Mporamporaekahitsyaomunyogororwaahaziba*, to reach your destination it is not only the speed but commitment, focus and resilience. Mutungi

(2015) argue that during the reign of president Idi Amin (1971-1979) many Ugandans revived the production of most essential items because the president had declared an economic war in Uganda after expelling Asians that supported the economy. People revived their indigenous skills in producing basic items. By the time Amin was defeated, in 1979, many Ugandan artisans had developed the art and skills of producing both industrial items and items for home use. They had started slowly again to support their lives and livelihoods and if they were supported to continue, some of them would be supporting the Ugandan economy. That is why Eyang & Foy (2006) argue that Africans enjoyed sustainable development until they were colonized. After colonialization, Africans started losing what was African through modernization and flawed strategies that promoted western ideologies where fronted to replace African development. Mutungi (2013) argues that western ideologies put creativity to sleep.

Africans and African governments need to start small because *rwamukuruwaawetekutahamushozi* (You cannot gain fame because of your brother's wealth) Africa cannot grow because of the success of American economy. I grew up seeing tins of oil with the world USAID with an American flag. As a young person who later became an artist, I used to like the art works in the tins that were used to make Tadoobas (locally made lights that uses kerosene). During Amin's time, most lighting systems were made out of tins that contained either cooking oil or lubricant oil from Total or Shell. In my secondary education, I learnt that USAID meant "United States Aid for International Development" of recent the word has been changed to "US AID from the American people". In other wards it is still international development but comes with a disclaimer that its "US aid" with emphasis "from the American people". This clearly shows that Africa cannot grow, sustain itself or contribute when it is constantly reminded that it's the Americans doing it. Indeed, your brother's wealth cannot be yours. Africa must raise and have development supported by its people. It is therefore a challenge to all African governments and leaders irrespective of their authority to challenge support and make Africans to produce, research, innovate and create for transformational and sustainable development after all kora *turyetugabamwaga* (Pressure for work is not mistreatment). We all must work if we are to claim ownership and to hold our leaders accountable.

On the other hand, sustainable transformational development can only happen if Africans promote and respect their traditional virtues such as the taboo of *omukago* (Friendship). Most development strategies in Africa have failed because people have lost a virtue of respect and friendship. Nduku & Tenamwenya (2014) argues that although corruption is an old practice in the history of the world, in Africa it was strengthened by the colonialists that introduced financial transactions. Traditional Africa used barter trade whose principle was double coincidence of needs. Corruption was further entrenched in Africa through politics that concentrated power in the hands of few individuals which denied participation hence damaging friendship as a virtue of community. Because people are not bound by any principles of friendship, they can go against the principles of friendship. They become selfish, embezzle public funds, become undemocratic hence hampering transformational development. Corruption has hampered development in Africa as Lawel (2007) observe that corruption has been an impendent of true and real development in Africa and has revenged the entire African system.



In many countries in Africa, where development has been reported to be growing, the growth is unbalanced with many people still under poverty. *Omukago* was therefore important and can still promote transformational development because it brings about self-respect and respect to others. People treat others as part of their family which may result in a balanced and a transformational development. It would be difficult for an individual to embezzle money meant to support a cause that will benefit his friend or a child of his friend. What we experience now is a society where the virtue of friendship has been lost, where people are individualistic, where people care about themselves and their immediate family members and where people do not care what happens to their neighbor. A society where shame is no longer part of society. Such society needs to promote virtues that may not be so much appreciated in the post-modern society but which can bring about transformational development after all *otomizetahwaikaranga*.

### Conclusion

The African proverbs and taboos were great reminders to the community to strive to move from one state of their living standards to the another. The proverbs and taboos acted to instill respect among community members. Each member had a responsibility to perform in the community and favours were not handed over at no cost. External strategies of development have been used to drive development but, in most cases, these have not been fully successful because planning is top down and leaves the community to lack a sense of ownership. As UNDP (2009) argues for development to be transformational and sustainable, people must have freedom of choice and capacity to choose. The African proverbs challenged everybody to participate, have a responsibility and be treated equally because kora *turyetugubamwaga* (Pressure for work is not mistreatment)

### REFERENCES

- African Union Commission. (2015). Agenda 2063: The Africa We Want. Addis Ababa, African Union Commission
- Alkire, S. (2010) Human Development: Definitions, Critiques, and Related Concepts Background paper for the 2010 Human Development Report, Oxford Poverty & Human Development Initiative (OPHI)
- Ashurst, M, and Mbiti's, (2010). Why Africa can make it big in Agriculture, Africa Research Institute.
- Eyong, C.T. and Toy, I.I (2006). Towards Alternative strategies for Sustainable Development in Africa, International Journal for Sustainable Development and Planning Vol.I No 2 (2006) 133 – 156
- Hutton, G, and Varughese M., (2016) The Costs of Meeting the 2030 Sustainable Development Goal Targets on Drinking Water, Sanitation, and Hygiene, International Bank for Reconstruction and Development / World Bank, [www.worldbank.org/water](http://www.worldbank.org/water)
- Kabumba,I, (2005). Good governance and sustainable development in Africa: Meaning, Relationship, Problems and Strategies, African Association for Public Administration and Management (AAPAM)
- Ki-moon.B.(2016). Policy Innovations Transformative Change: Implementing the 2030 Agenda for Sustainable Development, Geneva, UNRISD Palais des Nations
- Lawel, G. (2007). Corruption and Development in Africa: Challenges for Political and Economic

- Change, *Humanity and Social Sciences Journal* 2 (1)
- Madyo, M, R. (2008). *The Importance of Regional Economic Integration in Africa* Master's Thesis, University of South Africa
- Metzger, M. (2008). *Regional Cooperation and Integration in Sub-Saharan Africa*. UNCTAD/OSG/DP/2008/4
- Mulemi, B.A. (2010). *Coping with Cancer and Adversity: Hospital Ethnography in Kenya*. Leiden: African Studies Centre.
- Nduku, E. and Tenamwenye, J (2014). *Corruption in Africa: A Threat to Justice and Sustainable Peace*. Globethics net.
- Pieterse, J. (2010). *Development Theory Deconstructions/Reconstructions* 2nd Ed, London, SAGE Publications Ltd
- Reeves, S., Kuper, A., & Hodges, B.D. (2008). *Qualitative Research Methods: Ethnography*, *BMJ* 2008; 337:512-514
- Todaro, M., & Smith, S. (2009). *Economic development* (10th ed.). Boston: Addison Wesley.
- UNESCO (200) *UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions*
- UN (2016) *Transforming Our World: The 2030 Agenda for Sustainable Development* Sustainable development. un. Org A/Res/70/1
- UNDP. (2004). *Human development report 2004: Cultural Liberty in today's diverse world*. New York: Hoechstetter Printing Co.
- UNDP. (2005). *Human development report 2005: International cooperation at a crossroads: aid, trade and security in an unequal world*. New York: Hoechstetter Printing Co.
- UNDP. (2006). *Human development report 2006: Beyond scarcity: power, poverty and the global water crisis*. New York: Palgrave.
- World Bank. (2017). *Atlas of Sustainable Development Goals 2017: World Development Indicators*. Washington, DC: World Bank. doi:10.1596/978-1-4648-1080-0. License: Creative Commons Attribution CC BY 3.0 IGO
- World Bank. (2017). *World Development Report 2017: Governance and the Law*. Washington, DC: World Bank. doi:10.1596/978-1-4648-0950-7. License: Creative Commons Attribution CC BY 3.0 IGO