

Local Currencies as an Instrument for Implementing the Concept of Sustainable Development

Waluty lokalne jako instrument realizacji konceptji zrównoważonego rozwoju

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Abstract

The concept of sustainable development is multifaceted and multithreaded, thus, it inspires many researchers both in terms of the theory and methodology, as well as regarding its application. The presented article is placed in the latter approach. The main aim of the paper is to analyse the possibilities of the use of (resurging in the 20th and 21st centuries) local currencies for sustainable development, especially in respect of: alleviating poverty and reducing social exclusion, promoting stable, sustainable, and inclusive economic growth, diminishing discrepancies within and amongst states, making cities and human districts more secure, stable, sustainable, and favourable for social inclusion, assuring patterns of sustainable consumption and production. Apart from that, the criticism of the state money, included in the Club of Rome's report, encouraged the author to set another goal, i.e. to examine whether a local currency is a better instrument for sustainable development than state money.

The aims of the paper are supported by the analyses of three case studies of local currencies, i.e.: Palmas (Brazil), NuSpaarPas (Netherlands), and Zielony (Green, Poland). All considerations are set against the background of general trends regarding the development of currency systems and the evolution of money functions, as well as foreign and local experience connected with the existence and evolution of the local currencies.

Key words: money, local currency, sustainable development, Palmas, NuSpaarPas, Zielony (Green)

Streszczenie

Konceptja rozwoju zrównoważonego jest wieloaspektowa i wielowątkowa, stąd inspiruje wielu badaczy zarówno w zakresie teoretyczno-metodologicznym jak i aplikacyjnym. Prezentowany artykuł mieści się w tym drugim nurcie. Jego głównym celem jest analiza możliwości wykorzystania – odradzających się w XX i XXI wieku – walut lokalnych dla rozwoju zrównoważonego, szczególnie w zakresie: ograniczania ubóstwa i wykluczenia społecznego, promowania stabilnego, zrównoważonego i inkluzywnego wzrostu gospodarczego, zmniejszania różnicowań wewnątrz i pomiędzy państwami, uczynienia miast i osiedli ludzkich bezpiecznymi, stabilnymi, zrównoważonymi oraz sprzyjającymi włączeniu społecznemu, zapewnienia wzorców zrównoważonej konsumpcji i produkcji. Ponadto krytyka pieniądza państwowego, zawarta w raporcie Klubu Rzymskiego, skłoniła autorkę do postawienia drugiego celu, tj. zbadania czy waluta lokalna nie jest lepszym instrumentem zrównoważonego rozwoju niż pieniądz państwowy.

Przyjętym celom opracowania służy analiza trzech studiów przypadku walut lokalnych, tj.: Palmas (Brazylia), NuSpaarPas (Holandia) i Zielony (Polska). Całość rozważań osadzona jest na tle ogólnych tendencji w zakresie rozwoju systemów walutowych oraz ewolucji funkcji pieniądza, a także zagranicznych i polskich doświadczeń, związanych z funkcjonowaniem i ewolucją walut lokalnych.

Słowa kluczowe: pieniądz, waluta lokalna, rozwój zrównoważony, Palmas, NuSpaarPas, Zielony

1. Introduction

The concept of sustainable development, which, to a high extent, is an effect of the UN activity – starting from *Our Common Future* report (1987), then *Earth Summits* in Rio de Janeiro (1992), in Johannesburg (2002) and again in Rio de Janeiro (2012) – is multifaceted and multithreaded, hence, it inspires a number of researchers in the matter of its theory and methodology, as well as application. This article presents the latter approach, since it concerns the capability of using local currencies to implement sustainable development.

Seventeen detailed goals of sustainable development were approved on the 1st of January, 2016, within a UN document *Transforming Our World, the 2030 Agenda for Sustainable Development* (UN, 2017). Local currencies, successfully resurging in 20th and 21st century, are, according to the author, one of the instruments insufficiently used for the stimulation of sustainable development. The major aim of the article is to analyse the possibilities of their use, especially in terms of five goals:

1. End poverty in all its forms everywhere (1st Goal).
2. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (8th Goal).
3. Reduce inequality within and among countries (10th Goal).
4. Make cities and human settlements inclusive, safe, resilient and sustainable (11th Goal).
5. Ensure sustainable consumption and production patterns (12th Goal).

The importance of local currencies in the achievement of sustainable development is indicated in the Club of Rome's report *Money and Sustainability: The Missing Link*. Though the authors of the report appreciate the role of state (fiat) money for the development of entrepreneurship and innovativeness, they, at the same time, suggest sensitiveness and imbalance of the system based on this money. They also distinguish negative effects of functioning of such money, since state money leads to the deepening of economic cycles (both growth and decline) as well as the pressure to short-term results, thus losing the long-term perspective. Hence, fiat money enforces exponential growth (resulting in devastation of the environment), leads to concentration of wealth and disappearance of the middle class, increases the impoverishment of the poorest (which might result in anti-democratic movements), and causes devaluation of social capital, which is reflected in the lack of social ties and reduction in cooperation. The authors of the report see the remedy for the imperfections of fiat money in the monetary ecosystem. The monetary ecosystem implies not only the diversity of means of exchange, but also the diversity of the institutions

which issue them (*Lietaer et al.*, 2012). Local currencies fit into this ecosystem. The second aim of the article is, therefore, providing an answer to the question whether local currencies are a better instrument for sustainable development than state money.

The accomplishment of the aims of the research is supported by the analyses of three case studies. Considerations settled against the background of general trends in terms of the development of currency systems and the evolution of money functions, as well as foreign and local experience connected with the local currencies functioning constitute an important element.

2. The evolution of currency systems and money functions

A commodity in exchange for a commodity, referred to as *barter*, had been developing before money appeared. According to G. Davies (2002, p. 10-11), a trade exchange may be shown as an evolution: starting with barter, later supported by means of primitive money, then through domination of primitive money, in the next phase supplemented with modern money, which, finally, led to the domination of modern money. However, it does not mean that nowadays barter is no longer used. Barter may be used in the situation of financial resources deficiency (of its participants) or in case of high inflation, boosting transaction costs.

Primitive (natural) money could be based on such commodities as: grain, cattle, shells, amber, salt (*Finanse...*, 2015, p. 45). Nevertheless, they were very soon replaced by metals, such as: silver and gold, as well as copper and iron. It was in the second half of the 8th century BC when ore money was started being coined (Galbraith, 1982, p. 29-30). It was a huge convenience. Their value was based on the weight of ores included. It was a so-called *commodity money* with its intrinsic value (Mankiw, Taylor, 2011, p. 228).

Gold money became the first worldwide currency. However, problems concerning counterfeiting appeared, since mints owned by private entrepreneurs and by state rulers were responsible for money issuance. As a result, at the beginning of the 17th century 431 silver and 505 gold currencies were in use (Galbraith, 1982, p. 38). Additionally, the situation was complicated by the introduction of notes. Greater amounts of bullion were lodged in banks; in return its owner received a note in a form of a depository receipt, which could be used for financial transactions. Every bank, therefore, issued its own notes completely exchangeable for metals, which was referred to as the use of *gold standard* (Mankiw & Taylor, 2011, p. 228).

Established at the end of the 18th century as one of the first central banks, the Bank of England started to regulate the currency market situation by introducing homogeneous national money and caring for

its value (Galbraith, 1982, p. 55-76). In the 19th and 20th centuries, the creation and revival of national states was enhanced by accepting a unified national currency, whose value was monitored by the central bank of a particular country.

Due to the growing number of transactions at insufficient resources of gold, at the outbreak of World War I, the fall of the system of a currency exchangeable to gold began, and it ended after World War II (Galbraith, 1982, p. 192-206). Currently, paper money, therefore, is only a token of value (it does not possess any intrinsic value). It is referred to as symbolic (fiduciary, perfunctory) – mandatory (fiat) money (Mankiw, Taylor, 2011, p. 229). It has similar functions as the gold currency; it is a medium of exchange, a unit of account, a standard of deferred payment, and a store of value (Hubbard, 2008, p. 14-16). The first three functions are fulfilled by paper money at the same level as those of gold, however, only with the function of storing the value there is a danger of savings loss due to inflation or inequivalent exchange of one legal currency to another.

Part of the currencies nonexchangeable to gold became international (worldwide) currencies, which had the afore-mentioned functions, also in international affairs. The identification of the worldwide currency can occur in two ways. The first one consists in accepting the currency of the state with dominant political and economic position (United States dollar), whereas the other is an effect of the substitution of domestic currencies by a common and uniform currency (euro) in the case of states being in the phase of advanced integration, referred to as the economic and monetary union (Halizak, 2006, p. 269-296).

The current considerations are concluded in Table 1, which, based on three criteria: commercial value of the currency, material criteria, and backing, presents the hitherto money evolution.

Table 1. The typology of money evolution, source: J. Martignoni (2012, p. 2).

Criteria:	Types of currencies:
Commercial value of the currency	<ul style="list-style-type: none"> • Soft currency • Hard currency
Material criteria	<ul style="list-style-type: none"> • Natural money • Coins/Metal money • Notes/Paper money • Giro money
Backing	<ul style="list-style-type: none"> • Metal backing (Gold/Silver) • Fiat Money (money created <i>from nothing</i>)

The use of compulsory money requires regulation of its supply. The central bank is responsible for it; its role is increasingly greater not only with regard to cash issuance, since as it influences commercial banks, it also indirectly regulates the issuance of non-cash money. On the other hand, the develop-

ment of the Internet conduces the spread of electronic banking, which allows to execute deposit, credit, and billing transactions with the use of desktop computers and mobile devices (Wojtacka-Pawlak 2015, p. 154-155). Therefore, the term *digital money* appears, which may be understood both as electronic money (a pre-paid or a storing value one, which can be used in credit card transactions), constituting a legal currency, and so-called *cryptocurrencies* – artificial units of value, referred to as virtual currencies, acting in a decentralised and network manner both in the matter of their issuance and transactions between the participants of a virtual currency system. The oldest, established in 2009, cryptocurrency system is bitcoin, which is used by approx. 5.5 million users (Piotrowska, 2014, p. 276-277).

There is also a term *alternative currencies*, whose number reaches around 6000 (against 161 national and transnational currencies) (Sobiecki, 2014, p. 5). They ought to be understood as currencies, which are complementary and/or substitutional in relation to dominant national or international currencies. To such alternative currencies one may assign both cryptocurrencies and local currencies (Alternative..., 2014, p. 1). Blanc (2011, p. 6), on the other hand, proposes differentiation of three types of alternative currencies, which are:

- Local currencies whose attribute is their territoriality within their range of activity,
- Community currencies, functioning within a specific community, not necessarily defined by means of the territory,
- Complementary currencies whose aim is to complement the influence of the national currency on the economy.

In practice, local currencies, which will be subject to further considerations, may combine territorial, social, and economic elements identified in the aforementioned typology of alternative values.

3. Specificity of the local currency

Local currency (also referred to as *community currency*) is widely used, but its purchasing power exists within a specific community (Łukasiewicz-Kamińska, 2014, p. 209). One may say the local currency is a subject of social agreements, based on cooperation, trust, and acceptance between companies and consumers (Bacsi & Takcs, 2014, p. 9). It stimulates the development of entrepreneurship and local economy, functioning as a value measure, intermediary for exchanges, legal tender, and to a lesser extent – comparing to national and transnational currencies – means of value storing. Local currency can be issued by public institutions, local and regional governments, companies, and private persons (Łukasiewicz-Kamińska, 2014, p. 209).

The specificity of local currencies can be presented in comparison with national currencies. The most

important differences in this regard are demonstrated in Table 2.

Table 2. Local v. national currency, source: A. Łukasiewicz-Kamińska (2014, p. 210).

Local currency	National currency
Non-interest money, does not bring into debt, makes it possible to maintain financial resources at a stable level	Interest money, brings society into debt
Operates local transactions, without any possibility of free transferring or speculating	Under conditions of globalisation can be freely transferred or exchanged, contributing to the development of speculation sector
Supports local sector of production and service	Under conditions of globalisation supports international trade and production in the countries of the cheapest labour, contributing to the existence of development disparities.

The above-presented sets of characteristics explain the fact that the contemporary origin of local currencies is connected with the first great world economic crisis of the 1930s, to which national currencies appeared to be immune. Extensively described in the literature is the case of an Austrian city Wörgl, which in 1932 issued its local currency – Wörgl Schiling (exchangeable at 1:1 ratio to the official currency of Austria which was Schiling), thanks to which the city paid the local mine for coal, causing thus multiplier effects, since due to the wages paid to miners, local trade and services revived, therefore leading to the regulation of tax liabilities to the city and the increase in its investing possibilities. In addition, in 1934 in Zurich, a new non-exchangeable local currency (which exists to this day) WIR was introduced, which has its own bank in Basel with its branches in Bern, St. Gallen, Zurich, Lugano, Lucerne, and Losanna. In Germany there are about 40 local/regional currencies, from which 28 constitute an international network Regiogeld; in Spain – about 30; in the USA – a few hundreds. Several dozens of local currencies are created every year all over the world (Łukasiewicz-Kamińska, 2014, p. 211-213). The past experience of local currencies functioning makes it possible to identify more detailed reasons for introducing them. These are (Sobiecki, 2014, p. 7-16):

- Supporting local market and business, activation and development of local community, including local companies.
- Strengthening social bonds, forming sustainable and integrated society, and, thus, strengthening social capital.
- Reinforcing local democracy which may serve as a crucial counterweight to global

financial corporations and monetary authorities generating development inequalities.

- Creating new markets.
- Reducing prices for consumers and increasing the purchasing power of possessed resources.
- Minimising risk of using money.
- Creating a means of internal exchange in companies and territorial communities.
- Reinforcing consumer's loyalty.
- Freeing currencies from state monopoly by means of introducing competition of issuing money on the bases of the independence from state central institutions.

The commercial aim of local currencies (both national and transnational ones) is to help create the following relations: B2B (business to business), B2C (business to customer), C2C (customer to customer), C2B (customer to business), nevertheless, the social aims of local currencies involve, among others, care for the elderly, support for the retired and the unemployed, education, child-care, social contacts, cultural identification, and ecology. They may be issued as notes, secure loans, unsecured loans, exchangeable vouchers, customer's loyalty currency, mutual credit, or in any other form combining the aforementioned elements. Using time units and barter constitutes a characteristic way of value measuring and storing. For some local currencies a validation date is set, which aims to encourage spending, or a negative rate, also known as demurrage, is used – it consists in a forced payment for the downtime of money (Martignoni, 2012, p. 3).

Currencies are subject to evolution, Blanc (2011, p. 9) proposes to differentiate – starting from the 1980s – their four subsequent generations.

The first one (G 1) includes mainly social currencies, which are based on the reciprocity principle concerning diversified links with market; they are also non-exchangeable and they demonstrate small openness to external economic activity. As an example one can name, known for a long time, barter, as well as LETS or CES. LETS (Local Exchange and Trade System) was established in Canada in 1983. A credit point with a set value constitutes a means of exchange. The system is based on a reciprocal credit. Relations of C2C type prevail (Martignoni, 2012, p. 4). A register storing information concerning account's balance, as well as goods and services offered by the community, form the basis of the system. In the system, issuance of printed debt instruments is not applied. A modified in 2003 version of LETS is CES (Community Exchange System), which is found in Africa. Its characteristic property is the use of the Internet, which reduces operation costs and extends the range of its activity (Sobiecki 2014, 10-11).

The second generation (G 2) incorporates non-exchangeable community currencies which are based

on reciprocity and units of time of varied connections with local authorities, and are supported by partnerships, especially with local authorities (Blanc, 2011, p. 9). C2C relations, occasionally C2B, are dominant. An example for this type of generation are banks of time, which function basing on exchanging services between their participants. The currency is, for instance, a working hour. The system operates in such a way that every participant can take part in an equivalent exchange, which requires coordination actions (Sobiecki, 2014, p. 9-10).

The third generation (G 3) includes local-complementary currencies, which are exchangeable and connected with the market; they function due to a great engagement of local business, supported by partnerships with local authorities (Blanc, 2001, p. 9). Such currencies create relations of the following types: C2C, B2B, B2C. Examples of this type of currencies are, i.e., Ithaca Hours, Regiogeld, and Palmas. Ithaca Hours is a modified bank of time founded by Paul Glover in 1991 in the city of Ithaca (USA). The modifications concern pricing of one working hour (= 10 USD) and, executed centrally, issuance of paper certificates of ½ and 1 HOURS denominations. Each person joining the system, what is done by announcing in a bulletin, receives 4 HOURS (Sobiecki, 2014, p. 10).

Moreover, Regiogeld is an association incorporating 28 German local currencies. It operates according to eight rules, which are: community benefits, support for local production, creation of sustainable financial system, transparency, democracy, competent management, financial independence, and non-profit activity, as well as cooperation. Regiogeld offers substantive support for the already existing as well as for new local currencies created in Germany, however, it does not take any measures for unification and reciprocal exchange. The most famous currencies functioning within Regiogeld are Chiemgauer, Sterntaler, and Freitaler (Regiogeld, 2017).

Palmas, on the other hand, is an example of a local Brazilian currency issued by the bank. This case will be further discussed in the next section of this article. The last, fourth, generation (G 4) is constituted by mostly complementary currencies, oriented at consumer responsibility and/or reorientation of economic activity and other goals requiring partnerships, connected with the market and public authorities (J. Blanc, 2011, p. 9). C2B and B2C are the dominant types of relations. An illustration of this type of currency is Dutch NuSparPas, which enhances pro-ecological behaviours; they will be presented in more detail in the fourth part of this article.

4. Local currencies v. sustainable development – selected case studies

In this part of the article two case studies of local currencies of third and fourth generation, that is Palmas and NuSparPas, as well as Polish experience

with Zielony (Green) currency, will be demonstrated. Such a choice was not accidental; it was influenced by significant differences in regions' location and problems, which were tried to be tackled with the use of local currencies, especially considering the sustainable development goals enlisted in the introduction.

The first case stems from Brazil and it concerns the Conjunto Palmeira district in the city of Fortaleza. In 1973, local authorities of this located on the Atlantic coast city decided to rebuild the city by developing its tourist infrastructure in the coastal zone, at the same time resettling their inhabitants to drained marshland far from the ocean, consequently, depriving fishers of their former activity. To such created district of Conjunto Palmeira inhabitants from other areas were coming, usually from central Brazil. In 1973-1981, the number of inhabitants of the district reached 32,000 people. Conjunto Palmeira became one of the typical Brazilian favelas, without any access to fundamental infrastructure services, such as waterworks, sewage system, and electricity. In order to change this situation, on the wave of democratisation in Brazil, inhabitants of the district established a neighbourhood association ASMOCOP, led by the leaders of the local community, supported by the progressive part of the Catholic Church as well as local and international non-governmental organisations (Geruzel-Dudzińska, p. 70-71).

At the beginning of the 90s of the 20th century, thanks to cooperation with a German national company – GTZ, specialised in projects of sustainable development, which offered financial and technical help, the infrastructural problems of Conjunto Palmeira were finally solved. Nevertheless, this had a negative impact on the financial condition of the district inhabitants; on the contrary – some inhabitants had to move from the district because they could not afford to pay for infrastructural services (Pozzebon et al., 2014, p. 3). In this case ASMOCOP decided to define its priorities and generate strategies for improving the income of the inhabitants. A crucial activity in order to achieve that goal was establishing Banco Palmas in 1998 with its initial capital amounting to only 2,000 BRL, supplemented by local and international non-governmental organisations with 30,000 BRL. Support – by means of launching a special credit line – was given also by the Bank of Brazil (Geruzel-Dudzińska, 2015, p. 71).

Bank Palmas was supposed to achieve two main goals set by ASMOCOP, i.e.:

- Reduction of financial exclusion of Conjunto Palmeira's inhabitants.
- Finding ways for generating income by the local development within the district.

The first goal was accomplished by means of opening bank accounts without any complicated requirements set by commercial banks for the inhabitants and granting microloans. The form of processing the loan applications, comprising personal data, the aim,

and the amount of the loan, was specific. Bank analysts tended to visit neighbours of a potential borrower in order to assess their credibility and reputation. A positive opinion and the aim compliant with the bank priorities were the basis for granting a microloan. This procedure was used by the founder of the Palmas Bank, Joaquim de Melo Neto Segundo, in which he related to the experience connected with granting microloans for the people excluded from the traditional bank system in Bangladesh (Pozzebon et al., 2014, p. 4-5).

The other goal was achieved via three instruments coordinated with the system of microloans, i.e.: local currency of Palmas, map of local production and consumption, and intensive vocational trainings treated as an impulse for starting own business. Introducing the local currency enabled the inhabitants to receive a microcredit in that currency which they could use for purchasing commodities or services only in Conjunto Palmeira and in the surrounding area, that is, in those places where the currency was accepted. Purchasers using community currency obtained discounts from local entrepreneurs who, thus, offered loyalty programmes for their customers. Entrepreneurs, who sell their products in the local currency, also purchase products and services from other such entrepreneurs. As a result, the local currency contributes to the development of enterprise as well as the decline in unemployment and poverty in the district. Only in the event of purchasing materials, raw materials or executing business transactions outside of the entrepreneur's district, entrepreneurs are allowed to exchange the local currency to BRL (Geruzel-Dudzińska, 2015, p. 71).

Additionally, now the bank offers various forms of deposit and micro-insurance in the local currency. It also conducts negotiations on the entry of the Palmas system to big hotels, it acts as an intermediary in relations with commercial bank clients, and it intends to introduce an electronic version of the local currency (alongside the paper-based one). There is also an educational version of Palmas – Palminhas – which is destined for children, who can exchange notes for candies. During the two big football events in Brazil, i.e. the 2013 FIFA Confederations Cup and the 2014 FIFA World Cup, at the airport in Fortaleza tourists were able to exchange money not only for the national currency, but also for the local currency – Palmas, which, beside the economic purposes, was to serve as an encouragement for tourists to get to know the culture of Conjunto Palmeira district (Pozzebon et al., 2014, p. 6).

A map of local production and consumption was one of the impulses to introduce a local currency. The map, based on a special register prepared on the Palmas Bank's initiative and conducted among the inhabitants, presented the amount of purchased commodities and services in juxtaposition with supply in the district, which made it possible to estimate the

amount of money streaming from Conjunto Palmeira. On the other hand, to ensure permanent bases of district's sustainable development, the association of ASMOCONP and the Palmas Bank launched the creation of small solidarity businesses, such as: Palma Fashion (small sewing factory), Palma Tur (travel agency), Palma Limpe (cleaning materials factory), Palma Natus (natural soaps factory), Palma Arte (handicraft products manufactory), and Loja Solidaria (a shop selling exclusively local products). This is accompanied by intensive professional trainings, targeted especially at young people and women. On the bank's initiative the Palmas Institute was established, which induces partnerships in favour of the creation of similar banks in Brazil (around 60 already existing) and in other countries of Latin America (Pozzebon et al., 2014; p. 6-8; Geruzel-Dudzińska, 2015, p. 76).

The case of the Palmas Bank and the currency it issues demonstrates a positive example of creating the basis for sustainable development in Brazil – the country of great social contrasts, by means of combating social exclusion in the local territory dimension. The factors of success include: leaders who integrate the local community, the capability of establishing supporting institutions and broad strategic view on social problems; the view that uses an innovative set of instruments from which local currency plays one of the crucial roles. By confronting Palmas currency with state money, one may conclude that the local currency prevents the ongoing impoverishment of the poorest, for it is destined exactly for them. Moreover, the way of verifying the credibility of a borrower as well as the reduction of Palmas as a means of exchanging goods and services provided in the district, strengthen social ties.

NuSparPas, which exists in the form of an electronic card, is another case of a local currency. It does not have such a wide social context as Palmas. It focuses on the ecological aspect of sustainable development, or, strictly, on balanced consumption, and it is performed in such a wealthy European country as the Netherlands, which is financially supported by the European Union. NuSparPas is an example of a loyalty programme, which functioned within the private and public partnership among municipal authorities of Rotterdam, the Rabobank Bank, and Stichting Points Foundation in the years 2002-2004. The system of the local currency supported sustainable consumption in two ways:

- people participating in the system received credit points for environmentally friendly shopping and for pro-ecological waste management,
- gathered points might have been exchanged for ecological products or services (tickets for public transportation, cinemas, swimming-pools, etc.).

In the system of the NuSparPas local currency, SMEs and public institutions took part. The system proved that the means for encouraging inhabitants to behave in a pro-ecological way with the use of a local currency has a similar effect to the one the commercial loyalty programmes have, thus, it increases an interest in ecological products and services, at the same time causing an increase in the waste disposed at waste collection points (*Dobre praktyki...*, 2010, p. 72; Żwawa, 2012). Such behaviours are not caused by state money.

The last example of a local currency is Polish Zielony (Green) (*Zielony...*, 2017). In Poland, though in the times of real socialism there were alternative and complementary currencies such as PeKaO Bank coupons replacing USD in internal financial flow, vouchers for waste paper which could have been exchanged for deficient goods, car vouchers, food and drugs rationing stamps; the advancement of local currencies is still in a very early stage. Currently, there is only one system of such a currency (it used to be called Dobry or Piast). The system of the Zielony currency is organised (by Union of Entrepreneurs and Employers) in a form of a loyalty programme for SMEs and their clients. It consists in creating new business relations and efficient loyalty system for consumers, using surpluses, and increasing sales, thus supporting local economies and reducing unemployment. According to the authors of this project, the system brings benefits for entrepreneurs via B2B cooperation; additionally, it improves financial liquidity, since the local currency is interest-free and it gives a possibility to form an interesting motivation system for employees by giving them a part of their remuneration in Zielony.

Furthermore, the loyalty programme for Zielony Plus consumers constitutes a gratification system for loyal clients, which is used by local companies. Hence, clients receive attractive offers and big discounts; at the same time workplaces are protected in particular towns. Initially, the project of local currency included three voivodships: mazowieckie, małopolskie, and świętokrzyskie. Now it expands to other voivodships and towns, involving around 400 business entities, which execute approx. 1,000 transactions a day.

When assessing Zielony's usefulness as an instrument for sustainable development, one has to state that its main goal is the economic (increasing goods and services sales), and, to a lesser extent, social aspect (reducing unemployment). Contrary to what one might expect (Zielony means Green), no ecological aspects of using this local currency have appeared so far. It seems also troublesome to find solutions which would unequivocally prove that Zielony has an advantage over state money such as Palmas or NuSparPas.

5. Conclusion

To sum up all considerations, several conclusions can be drawn. Firstly, resurging and evolving local currencies are undoubtedly an innovative broad-spectrum instrument for enhancing sustainable development in social (combat against poverty, exclusion, and diversity), as well as in economic and ecological aspects (sustainable production and consumption). State money is not such an instrument. Local currencies are a better instrument for sustainable development.

Secondly, the effectiveness of using local currencies for sustainable development depends on the activity of local leaders and their taking into account the specification of existing internal and external conditions, as well as the ability to create partnerships amongst NGOs, business entities, and public administration, with special reference to local authorities.

Thirdly, the Palmas Bank's activity presented within the analysis of the case studies shows that local currencies function most effectively when they are a part of a bigger and expanding strategic programme. On the other hand, the NuSparPas currency is a simple way to shape sustainable consumption and production which could be used in any place all over the world. In the aforementioned analysis, the worst impression was made by Polish Zielony, which is in a very initial phase. The mistake its creators committed is that they concentrated solely on economic benefits and did not pay attention to the possibility of pro-ecological impact, which can effectively limit the number of its recipients.

Last but not least, local currencies, which constitute a social innovation, require promotion, especially among local leaders and authorities and in countries (such as Poland), where sustainable development is, on the one hand, one of the constitutional principles, but, on the other hand, is in practice used insufficiently.

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