

8 Collapse of a regional economy and its optimistic options for recovery

Günter KOCH

Humboldt Cosmos Multiversity, Tenerife, Spain

If there is one regional economy that has been fatally affected by the Corona epidemic and is now on the brink of extinction, it is that of the tourist islands, in Europe especially the islands belonging to the Mediterranean countries.

The so-called ultra-peripheral island regions of Europe, especially the Canary Islands, in one of which, Tenerife, the Humboldt Cosmos Multiversity (which is presided by the author of this article) has been hit even harder than any other Spanish tourist territory.

As romantically as the Canary Islands are perceived - they have been associated mythologically with the island of Atlantis as an instance of Thomas More's fantasy island of Utopia (More, 1551) - their situation is catastrophic today after more than one year of the pandemic. At the time when this article is being written, the Canary Islands are facing an economic slump of about 35% and equally high unemployment. Youth unemployment is even more dramatic with over 50%. A broad analysis shows that ultimately up to 50% of the economy of the islands depends on tourism or tourism related business, either directly or indirectly, as well as on international transport, because secondarily also the transport sector, the hotel industry, gastronomy as well as the construction industry largely depend on tourism and transport of goods.

Islands with a high living standard, as the Canary Islands were happy to experience, are each to be regarded as a microcosm in their own right, with a highly developed infrastructure, however, due to their insularity, they are at least scarcely in a position to relocate ground-based business. In addition, the Canary Islands in particular are prime examples of monolithic, i.e. hardly diversified, economic structures. An example of this is not only tourism, but also agriculture, which for reasons of an "economy of scale" has been cultivating monocultures for several decades, lately in the form of banana plantations.

In 2019, the gross domestic product (GDP) of the Canary Islands was at 47,164m euros, which places it as the 8th economy in Spain. Looking at the GDP per capita in 2019, which is taken as an indicator for the quality of life, the Canary Islands reported 21,244 euros. In comparison the GDP per capita in Spain in 2019 was at 26,430 euros and 41,340 euros in Germany (datamacro, 2020).

Looking in more detail to the economic domains, Tenerife's economy is best characterized by its tertiary sector, which takes about 74.6% (Cabildo de Tenerife, 2020). Within the service sector, in particular the tourism and in consequence the hotel industry stands out. Especially in the hotel area, there is a foreseeable need for highly qualified and well-educated personnel for high-class hotels. In connection to this sector, construction of buildings and touristic specialized construction activities are flourishing (European Commission, 2020a). The industry sector on the island is sparse and accounts for only about 8 % of local GDP, and concentrates in the processing of tobacco, agro-food processing and oil refinery. In regard to the primary sector, i.e., agriculture, the accent is on rain-fed plants as are potatoes and vines, and second in irrigated agriculture as are bananas and tomatoes. A relevant export of tropical fruits like mangoes, pineapples and avocados as well as flowers has started in recent years. Exports in this field are mainly geared towards trade with national markets in Spain as well as in the EU (Cabildo de Tenerife, 2020).

The commercial business structure on the Canary Islands at large is characterized by small and medium-sized enterprises. Thus, the Canaries have 146,126 registered companies, of which more than 50% have no employees at all, 35,17% employ five or less people and only 8.66% employ more than five people. For this reason, the island only has thirteen companies

with more than a thousand employees (European Commission, 2020). Approximately 1,130,700 people are in working age in the overall Canary Islands (2019), of which 239,600 people are unemployed. This involved 87,794 men and 116,735 women. The unemployment rate until early 2020 amounted to 21.19%, which was already above the national average. With the pandemic year 2020 it is exceeding 30%, with an unemployment rate of the young generation going above 50%. The majority of unemployed adult residents worked in the service sector, followed by the construction industry, the industrial field and finally the agricultural sector (European Commission, 2020). Analysed in more detail, most of the unemployed workers were from professions in administration, followed by farm workers, cashiers, carpenters, workers in orchards, greenhouses, nurseries and gardens, learning supervisors, receptionists and hairdressers. Considering such statistics, it can be concluded that the Canary Islands have a labour surplus in occupations in which lower skills are required (European Commission, 2020b). Regarding those who are employed, their minimum wage received in 2020 equals 950 euros per month, 50 euros more than in 2019, which is an increase of 5.6%.

The public debt amounted to 6,613 million euros in 2019, which is a debt per capita of around 2,978 euros (datamacro, 2020). Factors such as insularity, lack of raw materials and distance from the European continent resulted in disadvantages for a more prosperous development of the Canary Islands economy. To counteract these disadvantages, the Canary Islands enjoy the privilege of a special economic and tax regime, which includes e.g. special rules on the Value Added Tax (VAT) (European commission, n.d.a). These special rules imply that the islands are not part of the harmonized European VAT system (Article 6 of the VAT Directive). Instead, there is a local tax on consumption, the IGIC (Impuesto General Indirecto de Canarias) and another tax on consumption, namely the AIEM (Arbitrio sobre Importaciones y Entregas de Mercancías en las Islas Canarias). These taxes are handled by either the national or local authorities, which nevertheless need to accord with the general principles of the Treaty on the Functioning of the European Union, in order to exclude discrimination in the taxation of goods (European Commission, n.d.b).

During the last thirty years, the standard of living in the Canary Islands has continuously increased. This is evident in the steadily rising Human Development Index (HDI), which in 2018 had a value of 0.861. In comparison, Spain as a whole is in 25th place with a value of 0.893 and Germany is in 4th place with 0.939. In general, the HDI value shows a combination of life expectancy, GDP per capita and education levels. Countries that reach a value above 0.800 are considered to enjoy a very high level of development, which indicates that the Canary Islands have reached such high level of human development (Conceição, 2019, p. 300; Forte, 2018; globaldatalab, 2020).

The current Covid-19 crisis has an extraordinary strong impact on the Canary Islands economy. For example, every second company has reduced its workforce and about one in three has even laid off more than half of its employees or sent them to work part-time. Accordingly, about 40 percent of the island's residents are unemployed or working part-time. As a result, at least 28,000 people are now living at subsistence level. This in turn has a major impact on the economic performance of businesses. According to the Spanish Confederation of Small and Medium-Sized Entrepreneurs (CEPYME), 90 percent of companies currently make less sales than they did before the Corona crisis. Around 40 percent of them even experience turn overs less than half. Since the islands experience a huge dependency on tourism, it is harder for them to face the effects of Covid-19. All economic indicators of the Canary Islands are disproportionately more negative due to the dependence on the service sector as caused by the current Corona situation (Bornewasser, 2020a, 2020b).

In 2020, the economic collapse was compounded in addition by the fact that the islands were flooded by waves of migrants from Africa. Based on an article of Julia Macher (Macher 2020) in the German weekly DIE ZEIT, the situation must be drafted as follows:

Since September 2020, the number of those setting off from the West African coast in fishing boats towards the Canary Islands has risen steeply. The Atlantic route is one of the deadliest refugee routes in the world. At its narrowest point, 60 nautical miles separate West Africa from

the Canary Islands. Most boats with migrants leave from the south of Morocco. Not all of them arrive. According to estimates, around 500 people drowned during the crossing in autumn 2020 alone. About 20,000 have crossed the Atlantic to Europe so far, 7,000 in November 2020 alone. To the end of 2020 a total of 2000 boat people are estimated to have died – after a report from official German television (2nd Channel).

The Maghreb expert and journalist Ignacio Cembrero sees the current political situation in Morocco as a cause for the flight. In autumn 2020, the military conflict between Morocco and the Western Sahara liberation movement Polisario broke out again. Since then, the North African Kingdom of Morocco has massively withdrawn security forces from the coastal towns. Most of the boats depart from the port city of Dajla. According to the Spanish daily El País, around a thousand people are constantly waiting there for their chance to cross. Most of them are Moroccans who previously worked as waiters, tour guides, taxi drivers or in the tourism industry and who have lost their livelihoods due to the Corona crisis.

There exists no official information on the migrants' countries of origin. According to the Spanish Commission for Refugee Aid (CEAR), about half of them come from Morocco, followed by Senegal and Mali where the civil war governs the country. There are repatriation agreements between Spain and the Maghreb state, but currently the borders are closed due to the pandemic. Thus, diplomatic efforts between Spain and Morocco have come to nothing.

Normally, the high touristic season in the Canary Islands begins towards winter. However, because of the Corona pandemic, most hotels have remained empty to the end of 2020, except for twelve resorts that the Government rented at short notice to accommodate 5,500 migrants. From asking the migrants where they want to go and how to proceed, it is known that a majority want to get away from the Canary Islands to “Mainland Europe”. But that is exactly what the Spanish Central Government does not want. In the late months of 2020, the government has officially flown just 2,000 people to the mainland, mostly women and minors in need of special protection, or refugees who have applied for asylum. The presidents of the two islands Gran Canaria and Tenerife are furious about the Central Government’s ignorance. They foresee that the Canaries would be turned into permanent “prison camps” comparable to Lesbos in Greece. The Spanish Interior Ministry does not hide the fact that this policy is primarily meant as a deterrent. The Madrid Government wants to avoid migrants sending home photos of their successful arrival at the Canary Islands or the further in Barcelona, Madrid or Seville, signalling that their journey finally has been a success.

The Ministry of the Interior dodges enquiries about the exact number of flights made to the mainland. The Ministry of Social Affairs and Migration does not consider itself responsible for providing information. This leaves to us only a speculative calculation: if one assumes that about 20,000 men and women have arrived on the Canary Islands since the beginning of the crisis, there are currently about 9,000 who are staying there, 300 have been repatriated to their countries of origin and 2,000 are on the mainland as persons in need of protection or asylum seekers. Accordingly, the number of actual flights or repatriations must be much higher as officially admitted.

Politicians on the islands now fear for social peace and so they claim, that Spanish authorities forget about that the country is a tourism-dependent region, so especially the Canary Islands are particularly suffering from the Corona-Virus crisis. If social unrest spreads in the midst of such a crisis, it is foreseeable that it will create fear among the population, and fear in turn serves for a breeding ground for hatred. Aid workers already in 2020 reported that they were being mobbed and insulted by resident islanders. 6,450 long-term reception places that Madrid is prepared to create for the migrants on Tenerife, Gran Canaria and also Fuerteventura are far too few, foreseeing that Up to 300 people per day will continue to arrive on the islands in autumn 2020. Even if the numbers slow down seasonally in winter 20/21, the end is far from in sight.

In sum, as far as the Canary Islands are concerned, one must speak of the pandemic as an “Amargeddon” (<https://en.wikipedia.org/wiki/Armageddon>) that caught the islands unprepared. Although the Humboldt Cosmos Multiversity (www.humboldt-cosmos-multiversity.org) has

prominently pointed out the diversity deficit in its workshops since the beginning of its existence in 2012, however, it ultimately had to realise that even in academic circles, such as the University of La Laguna (ULL) and the islands' high-tech institutions as are ITER, InTech, ITEC, the Oceanographic Institute, the IAC, plus others more, they even more showed little response, or let's say it this way: little potential to react to this warning of a general danger. One of the warning voices on the potential catastrophic effects of an epidemic on the islands came from Rodrigo Trujillo, a mathematician from the local university ULL, pointing out which consequences a disease event would have for the fragile Islands' economy (Trujillo 2019)

The manifest "doom and gloom"-situation has led to quite a few initiatives both by the island governments and by private initiatives. In particular, the foundation of the local bank Caja Canarias stood out with a series of lectures analysing the situation, but as well as from the government itself, clever but ultimately unworkable proposals came forth so far, at least no proposals driven by entrepreneurs and private investors.

In view of the analysis of the deficits towards an efficient and entrepreneur-driven rebuilding of the islands' economy, the Humboldt Cosmos Multiversity in cooperation with the University of Kempten in Germany launched a project in which the master class of 25 students in international management were challenged to invent business ideas for rebuilding the economy specifically for Tenerife. Of course, it would have been obvious to use the existing structures and mechanisms to restart tourism and therefore develop a new start "in the old normal", which would unquestionably allow for a quick relaunch. This option, however, was discarded for two reasons. (1) Even if new forms of tourism, such as tourism devoted to ecology or health, will be indispensable, it still remains to be popular tourism. (2) In order to break up the monostructures and to move towards a more more diverse economic situation, new projects are needed that produce a diverse economy from the ground up.

Taking into account existing potentials and preconditions, the following five proposals on Sustainable Business Models based on the core idea of circular economy have been elaborated by the Kempten students' group as a solution to escape from the current depression (Kempten 2021):

1. "Ocean Support": Main goal of the "Ocean Support" business is to achieve plastic free beaches and seas. Funding is conceived by crowd and donation financing. Collected plastics shall be recycled.

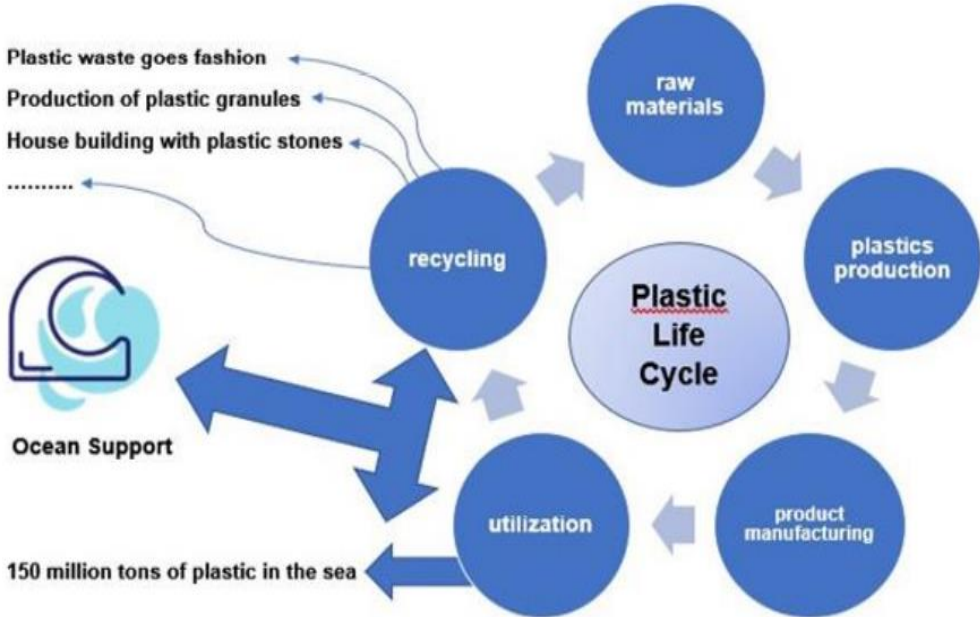


Figure 1: Plastic life cycle

2. “Seawater Greenhouse”: Efficient agricultural cultivation by efficiently transforming seawater into fresh water using solar energy.

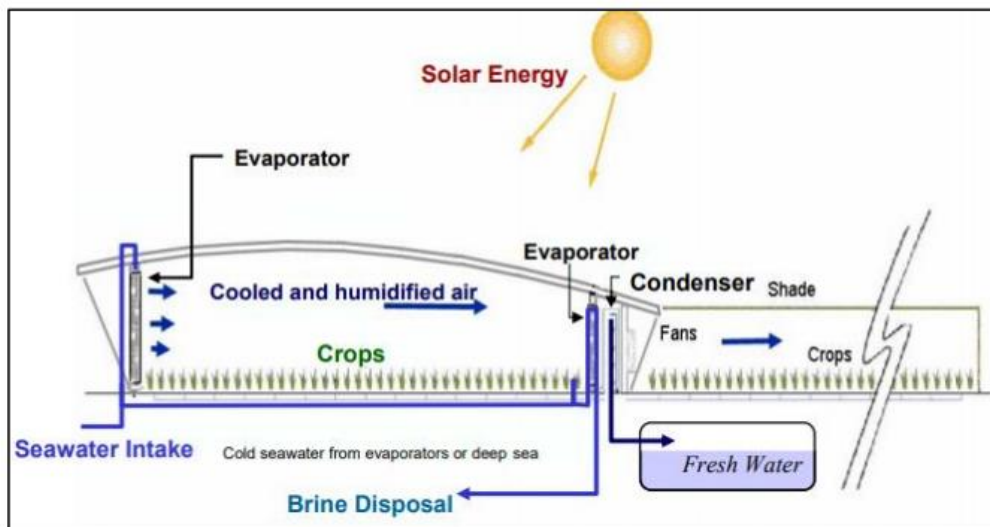


Figure 2: The functionality of the Seawater Greenhouse (Source Paton and Davies 1996)

3. “OneMarket”: The vision with onemarket is to create a platform for the suppliers and consumers of food products. The main idea is that consumers can order locally produced food of good quality by their phones or computers. "Food products" include everything Tenerife can offer: vegetables, seafood, and meat, as well as locally brewed beer.

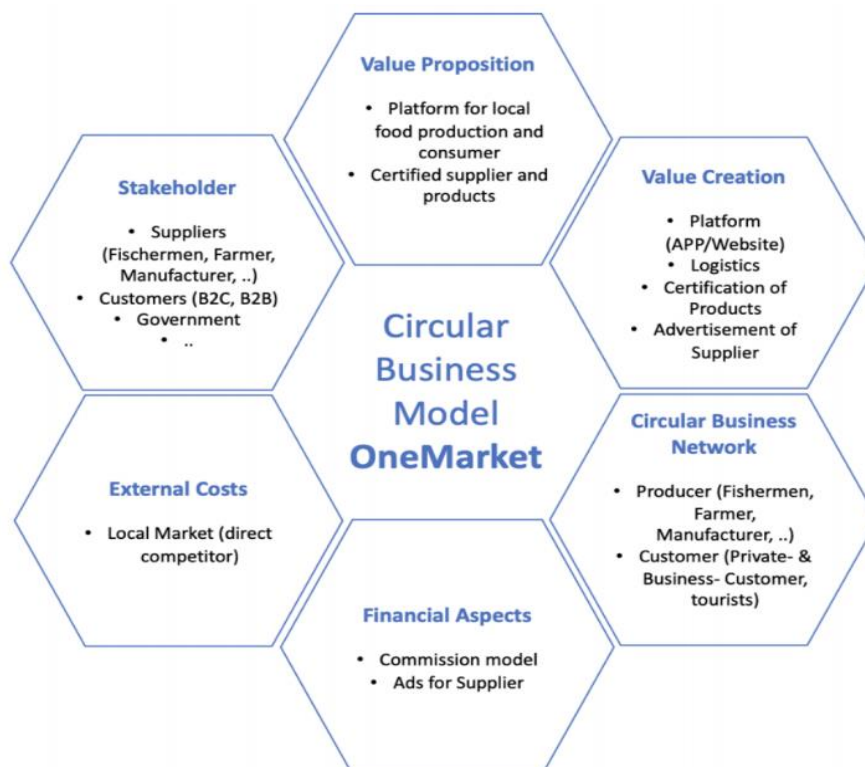


Figure 3: Circular Business Model OneMarket

4. “Vinerife”: The suggested goal is to expand Canarian wine business for the international market and to establish a well-organised and well working wine cooperative between today’s individual winegrowers as much as there are some of them willing to go for a merger.



Figure 4: *Canarian wines*

5. “Working from Home transferred to the Island”: The core objective of Working from Home is a service to enable employees of e.g. continental contractors to work remotely on a beautiful island for a limited time. This way, employees do not have to work from home, but can work for a limited time at another location that is equipped for their needs. Working from the Islands connects employees, their employers, co-working spaces and accommodation.



Figure 5: *Working from Home transferred to the Island*

Clear enough that the perspectives worked out by the students group - where intention of which is to raise optimism for the future - the proposed projects have different time horizons between an immediate implementation (Distant Working as outlined by proposal 5) to projects implementable within 2 to 3 years (proposal 3: “One Market” and 4: “Vinerife”) and longer term projects needing 5+ years (as apply for proposals 1: “Ocean Support” and 2: “Seawater Greenhouse”)

Even if, as was said at the beginning, the Canary Islands were hit by the pandemic like by an Amargeddon, the archipelagos has a potential to become a best in class template proving the wisdom that every crisis also contains the chance for a new beginning. Even if only one of the projects presented above will lead to success, the costly intellectual investments of the Humboldt Cosmos Multiversity in conjunction with the University of Kempten will have paid off in five to ten years at the latest and will have given the Canary Islands and its inhabitants, especially the youth, a new economic face. In this way, the pandemic would have generated a new world, perhaps even a new utopia.

8.1 References

Bornewasser, J. (2020a), “Corona-Krise: Die Wirtschaft der Kanaren liegt am Boden”, Teneriffa News, 6 July, [Online] Available at: https://www.teneriffa-news.com/news/kanaren/corona-krise-die-wirtschaft-der-kanaren-liegt-am-boden_12929.html [Accessed 29 December 2020].

Bornwasser, J. (2020b), "Corona-Effekt: Arbeitgeber der Kanaren warnen vor Pleitewelle ohne Tourismus", *Teneriffa News*, 21 October, [Online] Available at: https://www.teneriffa-news.com/news/kanaren/corona-effekt-arbeitgeber-der-kanaren-warnen-vorpleitewelle-ohne-tourismus_13361.html [Accessed 29 December 2020].

Cabildo de Tenerife (2020), *Clima y entorno*, [Online] Available at: <https://www.tenerife.es/portalcabtfe/es/descubre-tenerife/sobre-la-isla-de-tenerife/clima-y-entorno>

[Accessed 26 December 2020].

Cabildo de Tenerife (2020), "Economía y demografía", [Online] Available at: <https://www.tenerife.es/portalcabtfe/es/descubre-tenerife/sobre-la-isla-de-tenerife/economia-y-demografia>

[Accessed 17 December 2020].

Conceição, P. (2019), *Human development report 2019: Beyond income, beyond averages, beyond today: inequalities in human development in the 21st century*, United Nations Development Programme, New York, NY.datosmacro (2020),

"Economía de las comunidades autónomas. Canarias", [Online] Available at: <https://datosmacro.expansion.com/ccaa/canarias> [Accessed 10 December 2020].

European Commission (2020a), "Arbeitsmarktinformationen. Spanien - Canarias", *Kurzer Überblick über den Arbeitsmarkt*, [Online] Available at: <https://ec.europa.eu/eures/main.jsp?catId=441&countryId=ES&acro=Imi&lang=de®ionId=ES7&nuts2Code=ES70&nuts3Code=®ionName=Canarias> [Accessed 15 December 2020].

European Commission (2020b), "Arbeitsmarktinformationen. Spanien - Canarias", *Wo gibt es die freien Stellen?*. [Online] Available at: <https://ec.europa.eu/eures/main.jsp?catId=441&Imi=Y&acro=Imi&lang=de&recordLang=de&parentId=&countryId=ES®ionId=ES7&nuts2Code=ES70&nuts3Code=null&mode=shortages®ionName=Canarias>

[Accessed 20 December 2020].

Forte, F. (2018), "Human development index score of Spain in selected years from 1990 to 2017", [Online] Available at: <https://www.statista.com/statistics/877134/human-development-index-of-spain/> [Accessed 28 December 2020].

globaldatalab (2020), "Subnational Human Development Index", [Online] Available at: https://globaldatalab.org/shdi/shdi/ESP/?levels=1%2B4&interpolation=0&extrapolation=0&nearest_real=0

[Accessed 26 December 2020].

Kempton (2021). Hochschule Kempton University of Applied Sciences Term Paper 2020/2021: Five ways to shape the economic and ecological environment on the island of Tenerife in times of a global pandemic and beyond. Macher, J. Flüchtlingskrise auf den Kanaren: Gestrandet im neuen Moria. In : DIE ZEIT ONLINE vom 27. November 2020

More, T. (1551/2002). George M. Logan; Robert M. Adams; Raymond Geuss; Quentin Skinner (eds.). *Utopia* (Revised ed.). New York: Cambridge University Press.

Trujillo. R. (2019): Verbal Presentation at the 2019 edition of the "Knowledge Cities World Summit" (KCWS) in Florianópolis, Sta. Catalina, Brazil.

