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# **Is food aid a good helper? A global analysis of food aid with particular attention to some developing countries**

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## **Introduction**

Poverty and hunger continue to represent two critical phenomena to be eradicated nowadays and are considered as top priorities at the international level. For instance, the United Nations developed in 2015 an action plan, called the 2030 Agenda for Sustainable Development, aiming at promoting development strategies at the global level and ensuring that no-one is left behind. Although poverty has registered a decreasing trend in recent times, the number of food emergencies related, for example, to extreme climate events or man-made disasters is still very significant. Accordingly, prompt and efficient responses need to be implemented at both multilateral and country level.

Food aid is generally depicted in people's minds as a mere physical transfer of food to poor countries, but it consists of much more than that. Since its emergence in the 1950s, it has been subject to criticism because some advanced economies have implemented it as a foreign policy instrument and a tool to achieve objectives, ranging from surplus disposal to the protection of investment and trade interests, rather than fostering development and alleviating poverty and food insecurity. Due to this phenomenon, food aid has often been questioned on whether it is actually targeted to people that are in greatest need or it is provided to some "preferred" countries. Furthermore, it has been strongly criticised also in relation to the effects that it may cause on recipient economies (e.g. reduction in domestic production and change in domestic consumption patterns). Today, international organisations are considerably committing to improve food aid targeting effectiveness by minimising the potential influence that economic and political interests may exert on food aid provision.

This dissertation will provide both a qualitative and quantitative analysis regarding food aid flows at the donor and recipient level, as well as investigating whether poorest and most food insecure countries are receiving adequate amounts of food aid and whether they are prioritised over countries that are less in need.

The aim of this dissertation is to provide a picture of the overall food aid scenario characterising the last twenty years, by attempting to combine elements often discussed in the literature separately from each other and to integrate aspects that have not been

significantly studied yet. Another important goal is to raise people's awareness of the food aid phenomenon, which can be often misunderstood, by exploring its weaknesses but also its potentials.

In order to meet these objectives, in the first chapter it will be provided a general insight concerning the definition of food aid and the different ways in which it can be classified. Furthermore, food-aid-related literature will then be analysed, by focusing on its impact on food aid evolution as well.

The second chapter, instead, will provide a more quantitative analysis regarding food aid flows, by taking into consideration donors' and recipients' perspectives separately. In order to support the aforementioned analyses, an overview about food aid policies implemented by donors and an investigation concerning bilateral relations tying food aid recipients and donors will be conducted.

The third chapter will focus considerably on the concepts of poverty and food security, which play an essential role in the food aid study, by analysing them both from a theoretical point of view and in relation to food aid provision. Relationships between poorest and most food insecure countries and the relative donors will be investigated too.

Eventually, the fourth and final chapter will provide a comparative analysis between the results obtained from the previously conducted analyses, in addition to summarising information discussed in previous chapters. Some proposals aiming at improving the ongoing food aid situation and increasing its targeting effectiveness will also be suggested in the concluding part.

# Chapter 1. Food aid: overview

## 1.1. Definition

Food aid is not characterised by a unique and universally accepted definition, for instance there is a lack of consensus under different aspects. Concerning the scope of food aid definition, for example, some analysts adopted a broader vision of food aid entailing all types of food assistance necessary to fight against hunger in all the countries (also the rich ones), while others supported a narrower definition (Awokuse, 2010). Despite this absence of harmonisation, it can be argued that food aid has to be characterised by the following three fundamental elements: firstly, one border, at least, has to be crossed by aid, so it has to be international. For example, government aid provided to its citizens is not considered as food aid. Secondly, food aid has to be provided at a concessional price, that is at a price lower than the market one, or provided for free. Finally, it has to be in-kind or in the form of cash-based transfers (Barrett and Maxwell, 2005; Jones, 2017; Murphy and McAfee, 2005). According to the World Food Program (2018), the term cash refers, for example, to vouchers, e-money and bank notes. By summing up all the previous aspects, FAO (2018) defines food aid as a food transfer, donated or sold at concessional prices by one country directly to another one (i.e. the recipient country) or indirectly via local governments, aiming at satisfying the latter's food needs.

## 1.2. Classification

### Food aid by use

Food aid can be distinguished between: program, project and emergency and this division is generally applied in accordance with the objectives it has to meet, such as supporting the budget, promoting development programs and ensuring humanitarian assistance. However, it is important to underline that the distinction between different types of food aid may be blurred sometimes.

### *Program food aid*

Program food aid entails government-to-government food transfers, by constituting a sort of economic assistance, that is a budgetary support generated from the profits of food sales (OECD, 2015). Some program food aid is provided for free to recipients while the remaining part is provided on concessional terms. As a matter of fact, the donor agent implements an export credit which will be paid back by the recipient on terms that are more favourable than those offered by the market. By doing so, the donor government is able to support food sales by private companies to recipients. These bilateral transactions between governments entail that this type of food aid is not directly targeted to the most food insecure population, for instance recipient governments lie between donors and poor and malnourished people (Awokuse, 2010). Program food aid is, then, sold by recipient governments to finance development initiatives (Wolf, 2014). In the past, especially in the '60s, this kind of food aid was the most implemented one since it represented a tool for surplus disposal in donor economies. However, program food aid registered a significant decrease over the years, for example it constituted 49% of total food aid during the '90s and below 15% from 2004, by reaching 3% in 2012 (Murphy and McAfee, 2005; WFP, 2013a).

As it will be discussed in the literature review, program food aid has been strongly criticised due to the effects it may generate on recipient economies. For example, it can act as a disincentive on local production and import displacement, as well as altering consumption patterns (OECD, 2005). Besides, quantifiable impacts on poverty eradication of this kind of aid are very difficult to find (Pillai, 2000). These factors led to the above-mentioned fall of program food aid in recent times (Awokuse, 2010; Clay et al., 1996).

### *Project food aid*

Project food aid is distributed on grant terms to support food security and nutrition initiatives and it can include school lunch and food for work programs (OECD, 2019). This kind of food aid can be directly distributed to specific recipients through the aforementioned programs or can be sold by non-governmental organisations (NGOs), that is monetised, to finance their development-related projects (OECD, 2005; Wolf, 2014). This is usually implemented by the most important US NGOs, like CARE and World Vision,

however some provisions of the US Farm Bill, aiming at reducing food aid monetisation, have been approved (Egler, 2015). In addition, some NGOs publicly committed to suspend this practice because of its market distortion effects (CARE, 2013). Food aid monetisation is preferable to be applied when some critical conditions are met: substantial balance of payment (BoP) limitations and chronic food insecurity and when the agents enacting monetisation are committed and capable to foster development in recipient countries (Tschirley and Howard, 2003). Monetised project food aid can be confused with program food aid but they show some differences, for example the former is channelled through multilateral agencies or NGOs and it is characterised by a more targeted purpose than program food aid (OECD, 2005). On the other hand, the latter refers to government-to-government transfers (OECD, 2015).

### *Emergency food aid*

Emergency food aid aims at providing food for free to people experiencing emergency food-security-related situations generated from natural disasters and conflicts (OECD, 2019; Zolin, 2013). It comprises short-term emergency operations and protracted relief (and recovery) operations (Lowder, 2004). The former refer to food aid donations to combat hunger in the short term while the latter are related to emergency situations which require a longer term action. As it will be analysed later, it will play a more and more critical role in the food aid scenario over the years, for instance it increased by 54% from 1988, by reaching 70% of total food aid in 2012 (Kryshtapovych, 2015; WFP, 2013a). Despite its ability to provide immediate benefits to recipients in terms of food security, emergency food aid needs to be integrated in a wider strategy, including other types of assistance as well, when vulnerable people's livelihoods are deeply threatened in the long term (OECD, 2005). Emergency food aid and project food aid are often intertwined and, consequently, difficult to be distinguished. For example, some humanitarian initiatives involve school feeding or food for work (Lowder, 2004; Ravallion, 1997). Humanitarian intervention depends on the emergency that has to be faced (e.g. conflicts, natural disasters), as a matter of fact food aid can last several years in case of displaced people because of limited opportunities to generate income or insufficient arable land. The long-term need for food aid can occur also during wars since it can be fundamental during the whole duration of conflicts for both citizens and displaced people. For instance, agriculture is usually severely damaged in these situations and markets are disrupted, by

constraining access to food. Regarding extreme climate events, food assistance is, instead, usually associated with a shorter-term intervention necessary to restore local business activities (Mousseau, 2005).

It is important also to underline that food aid is often classified as development and emergency (or humanitarian) food aid nowadays. The former group comprises food transfers or cash for food to meet development objectives and therefore, it includes both programme and project food aid. The latter one consists of food donations to tackle emergency situations (i.e. natural or man-made disasters), as it was distinguished in the previous classification. Countries and international organisations are usually applying this distinction today when discussing and analysing food aid provision in order to avoid confusion in its classification. For example, the WFP stopped disclosing data regarding program, project and emergency food aid from 2013.

#### Food aid by source

Generally, food aid is depicted as physical deliveries of commodities from donors to recipients, in fact it just represents a part of it, especially nowadays. For instance, another significant way to classify food aid is represented by its source mode which comprises: direct transfers, triangular purchases and local procurement.

#### *Direct transfers*

Direct transfers represent the provision of food aid coming from the donor country. This is also called in-kind food aid or tied food aid, since it is extremely linked to food originated from the donor country and in some cases also to donor-country-based businesses (Meeks, 2018). According to the OECD (2018), tied food aid is defined as any aid entailing the procurement of goods and/or services from the donor country and it is provided for free or sold at concessional prices to NGOs and governments. The latter, then, can sell it on concessional terms in the recipient country, in order to fund their development initiatives (Kneteman, 2009). According to Dippold (2016), tied food aid is mainly supported by countries with an important agricultural sector and often implemented as a strategy for domestic price support by decreasing excess food supply. In recent years, in-kind food aid mostly comes from the United States, Canada and

Australia whereas untied food aid is mainly provided by the European Union (European Commission, 2019b; Food Trade and Nutrition Coalition, 2005). In the next sections, their contrasting food aid policies will be indeed discussed in more detail. Food aid is tied in an unambiguous way when its procurement is required, by national legislation, to occur mostly within the donor territory. For example, at least 50% of US food aid has to be processed in the US before delivery (Jones, 2017; OECD, 2005). The definition of tied food aid can extend also to those cases in which procurement is constrained by contracting terms and such limitations may consist of specifications of shipping routes, timing and type of food (OECD, 2005). In recent years, provision of tied food aid has shown a relevant decrease, since several studies demonstrated its lack of effectiveness on meeting development objectives, by thus favouring untied or cash-based assistance (Awokuse, 2010; Jones, 2017).

#### *Triangular purchases*

Triangular purchases represent transactions in which food aid is bought in one country (not the donor one) and then provided to another one, that is the recipient country (OECD, 2019). The greatest share of food is usually purchased in developing countries. These may include also commodity swaps, i.e. process entailing the sale of food to one country in order to purchase other food that will be delivered as food aid to another country (Murphy and McAfee, 2005). As it will be discussed later, triangular transactions are often taken into consideration together with local purchases as opposing practices to in-kind food aid (i.e. direct transfers). From a marginal relevance in the food aid scenario, these two sourcing modes became more and more significant in recent times.

#### *Local procurement*

Local procurement consists of local purchases of food in recipient countries and it is considered as the most cost-effective food aid supply mode since additional costs like delivery ones are minimised (OECD, 2019). Triangular purchases and local procurement are becoming more and more critical among supply modalities by donors and, besides, the most supported by international organisations. However, they have not still overcome direct transfers because of the rise in assistance in the form of vouchers and cash transfers (Kryshtapovych, 2015). Direct transfers considerably fell from 1988 (when they consisted of 91% of total food aid) but they still account for around 60% of the total (WFP, 2013a).

For example, the World Food Program started to purchase food locally in Asia during the 1970s and then in Africa during the 1980s. Moreover, the European Union started to support untied food aid through a regulation in 1996 and Canada, which was one of the most important implementors of tied food aid, decided to abandon the last kind of assistance by favouring local procurement and cash-based aid (Tew, 2013). Great exception is made by the US, which continues to implement direct transfers and, accordingly, tying food aid to domestic contractors (Jones, 2017; Murphy and McAfee, 2005). As previously mentioned, these two supply modes are more cost-effective in terms of shipment due to shorter distances and food sources are generally less costly. Moreover, shorter distances lead to a more time-efficient food aid provision, which is undoubtedly a critical characteristic for food aid (Meeks, 2018). Triangular transactions and local purchases can also have a relevant impact on recipients' development and food security in the long run by encouraging economic activities, since food aid is sourced locally or in neighbouring developing countries. However, local procurement is not always the best strategy to implement, as a matter of fact, it may lead to soaring prices that can further worsen domestic food security levels. In addition, aspects such as food availability and transportation system need to be evaluated before enacting local procurement strategies.

According to Maxwell, Lentz and Barrett (2007), two factors are essential in deciding whether local and triangular purchases or in-kind food aid should be applied in both emergency and non-emergency conditions and these are: market functioning and food availability. The first step involves assessing whether the market is well-functioning, that is when an increase in local market demand leads to an increase in supply without generating a steep increase in prices. If this is the case, just cash transfers can be used, but, if domestic food markets are unable to source necessary commodity quantities without causing a rise in food prices, food aid provision, accordingly, is required. If the last scenario occurs, it is important to consider whether there is enough food available in neighbouring regions in order to evaluate the best food aid policy to provide. If yes, triangular purchases and local procurement can be implemented, otherwise long-distance food aid shipments are required.

### Food aid by channel

As mentioned in the description of food aid types, food aid can be provided through different channels, comprising bilateral (government-to-government), multilateral (multilateral agencies) and NGOs. According to the World Food Program, (2013a), multilateral channels are the most applied to food aid provision, accounting for almost 60% of total food aid provision. They are then followed by food aid via NGOs which represents about 29% (WFP, 2013a). Bilateral food aid consists of a small portion of total food aid today (about 11%), by decreasing significantly from the levels registered during the first years of the 21<sup>st</sup> century.

### *World Food Program*

The World Food Program (WFP) is a United Nations agency and it represents the most significant multilateral channel through which food aid is provided nowadays. Later on, a detailed investigation about WFP's food aid policy will be conducted, so just a brief overview is provided here. A critical element that characterised the WFP's work during the last decades was the significant shift from in-kind food aid toward food aid based on cash. In 2018, the latter constituted 35% of total WFP's food assistance and targeted 62 countries. Furthermore, \$1.74 billion were channelled through the WFP, by reaching 24.5 million people (WFP, 2019). In order to respond swiftly and efficiently to food crises, it implements programs combining in-kind and cash-based aid, as well as selecting the delivery mode (or a combination of them) to adapt to every single situation. International cooperation is also of critical importance for WFP's intervention, as a matter of fact many initiatives require a relevant degree of coordination with international partners (WFP, 2019).

### *Food Aid Convention (FAC)*

When analysing multilateral channels of international food aid, it may be interesting also to investigate which multilateral agreements are present today and their role in regulating food aid practices. The Food Aid Convention (now Food Assistance Convention) consisted of a set of guidelines established in 1967 and then renewed in 1999 (Hanrahan and Canada, 2013). Its signatories were exclusively represented by donor countries and

they were 23 in total, including for example the United States, Canada, the European Union and its member states (Murphy and McAfee, 2005). They pledged to provide a minimum level of food aid annually (both through direct transfers and local and triangular transactions) by prioritising countries that were most in need (Jones, 2017). In case of failing to meet obligations, donor countries had to recover the missed amount the next year. However, FAC has shown many weaknesses over the years and failed to provide an effective food aid regulatory system. For example, most donors committed much lower levels of food aid than their usual provision through the FAC. Moreover, its rules were applied exclusively to contributions made under the FAC and not to donors' total food aid ones. In 2012, a new version of the FAC under the name of Food Assistance Convention was renegotiated. The actual members are 16, comprising the European Union, the United States, Australia and Japan (United Nations, 2018). The main difference from the previous version is that donor countries are free to set their minimum level of food aid commitments and that the main focus is on food nutrients rather than on a limited range of foodstuffs (United Nations, 2012). The changed name also wanted to reflect a more significant direction toward untied food aid (i.e. local and regional purchases) occurred in recent times (Jones, 2017).

### Food aid by commodity

Food aid can be seen as a means to tackle nutrient supply shocks in recipient countries, for instance its beneficiaries (that is poor and food insecure people) represent that share of population unable to satisfy dietary energy intake needs due to, for example, decreasing levels of income and soaring food prices (Kuhlgatz and Abdulai, 2012). Accordingly, food aid needs to respond to specific nutrient deficiencies and provide energy-rich food (European Commission, 2019b). According to the World Food Program (2015), commodities used as food aid are divided into cereals and non-cereals and they are further classified by conservation method (lyophilised, dried), by variety and by packaging (canned or not). Distinction between cereal and non-cereal is mutually exclusive, so commodities necessarily have to belong to one group. During the two last decades, food aid has been mainly composed of cereals, which accounted on average for 85% of total food aid (WFP, 2013b; WFP, 2015). The most relevant cereal component of food aid is

represented by wheat and wheat flour, followed then by coarse grains and rice. Cereals are further grouped into grains and processed grains. The first commodity group includes: wheat, maize, rice and sorghum, while the second one: wheat flour, corn-soya blend, wheat-soya blend and maize meal (OECD, 2005). Blended foods are important food aid components as well and they mainly consist of cereals combined with micronutrients and milk powder. Non-cereals consist mostly of pulses and fats and oils.

Recipients' nutritional needs are of critical importance when analysing food aid nutritional composition and they can be used as a tool for food aid performance assessment (WFP, 2017). They significantly depend on sex, age, climate and health (WFP, 2018). The main nutrients identified (especially by the World Health Organisation) are Energy and thirteen nutrients among which two macronutrients (that is Fat and Protein) and eleven micronutrients (e.g. Vitamin A and Iron). According to the WFP (2018), food aid should provide 2.100 calories per person in case of full dependence on assistance and 17% of these should come from fat while 10-12% from proteins. Under the nutritional composition perspective, food aid greatly varies by type, for example emergency food aid usually involves general nutrition assistance aiming at responding to food emergencies in a timely manner, whereas programme food aid (and sometimes project food aid) lacks targeting processes towards recipients and, thus, this reflects its limitations on solving nutrient deficiencies (Clay et al., 1996; Kuhlitz and Abdulai, 2012). This significant focus on nutrients, however, did not represent a priority in past food aid policies, as a matter of fact donors were used to ship as food aid commodities that were in surplus in the donor market, e.g. the case of EU skimmed milk powder during the '90s or the soybean oil in the United States (Barrett, 2002).

### **1.3. Literature review**

Food aid has been subject to discussion since its emergence in the late '50s and early '60s, however, a clear and definite vision of food aid still has to be reached, as witnessed by the upcoming literature analysis. For instance, a great share of the literature, particularly that from the 20th century and early 21st century, is mainly concerned with programme food aid because it was the prevalent form of food aid at that time (Barrett, 1999; Schultz, 1960). Furthermore, another important element related to food aid literature is that it often

analyses development assistance at the aggregate level rather than focusing on its single components like food aid (Easterly, 2001). Other works discuss, instead, single food aid programs or analyse specific geographic areas (Barrett and Heisey, 2002; Clay et al., 1996), by providing a quite distorting and partial study of food aid and recipients' needs. In the first case, for example, focusing on an individual point of view neglects the fact that food aid in recipient countries is provided by multiple donors and not just one.

Further limitations are linked to the lack of harmonisation regarding the definition of food aid, as well as food security, and its classification (e.g. emergency, programme and project food aid may result overlapping in certain situations). According to Awokuse (2010), the presence of a small number of empirical studies is also attributed to the absence of data related to critical variables and their misalignment, the lack of harmonisation concerning food insecurity measures and also the complex nature of food aid, for example, under the procurement and distribution channel perspectives.

Due to these limitations and absence of harmonisation, food aid literature presents contrasting opinions regarding its effectiveness and impacts on recipient countries. According to Mousseau (2005), food aid plays a critical role in saving lives during severe food insecurity situations, in addition to prevent the implementation of strategies hindering economic development. It is also considered an effective tool in enhancing economic growth and alleviating poverty (Kaya et al., 2013). Regarding program food aid in particular (i.e. monetised food aid), it may represent a fundamental source of income for recipients which may encourage investments addressed to local farmers (Awokuse, 2010). According to Nunn and Qian (2014), instead, food aid leads to anti-developmental effects and the reduction in food security in the long run. In addition, food aid has been subject to criticism under other different aspects which can be summarised as follows (Anderson, 1999; Del Ninno, 2005; Mousseau, 2005; Nunn & Quian, 2012; Tew, 2013):

- food aid represents a “donor-oriented system”;
- food aid provision leads to a reduction in domestic prices and food production in recipient countries;
- food aid provision leads to food import displacements and aid dependence in recipient countries;

- it is characterised by procyclicality;
- it affects the level of consumption and consumption smoothing and
- it constitutes a late response to food emergencies.

These aspects are significantly discussed by several authors and, accordingly, they will be analysed more in detail later. As the previous critiques may suggest, few studies support the positive effects of food aid, for instance most of them consider it effective only in combination with further elements like government policy or investigate mainly its negative impact (Burnside & Dollar, 2004).

#### Price disincentive and domestic production

The most important studies in food aid literature are surely those conducted by Schultz during the Sixties and Barrett in recent times. They shed light mainly on the impact of food aid on local imports and production in recipient countries. Empirical research has, however, failed to find evidence supporting the previous works and, accordingly, the effects caused by food aid allocation keep on being ambiguous. It is essential to underline that program food aid, i.e. food aid produced in advanced economies and allocated, or sold at a concessional price, to recipient countries, is taken into consideration in these works, not the targeted one, which, on the other hand, constitutes the greatest share of food aid nowadays. The latter represents the food aid allocated for free to poor people who would not be able to intake the required amount of calories, i.e. emergency food aid (Lowder, 2004).

Schultz's theory is mostly based on the idea that food aid causes a price disincentive effect on recipient economies, especially for local farmers, which leads to a reduction in domestic food production. Fitzpatrick (1989), Maxwell and Singer (1979) and Oxfam (2005) share this theory in their works as well. The above-mentioned phenomenon, i.e. the driving down of domestic food prices, may occur when beneficiaries sell the food aid received to buy other necessities or when recipient households' demand for the food aid received decreases (Barrett, 2006b). Moreover, it can cause also serious harm to recipients' neighbouring economies to which food aid was not originally destined (Barrett

and Maxwell, 2005). Maxwell (1991), instead, demonstrates that the effect of food aid on prices is linked to the policy enacted by the government in a specific recipient country.

### Import displacement and aid dependence

By referring to the Schultz's theory, food aid is considered additional to imports whereas, according to Barrett (2001), Clay et al. (1998) and Saran (1991), food aid displaces food imports and affects less significantly local production. In the short run, this import displacement causes aid dependence to recipients while, in the long run, Barrett (2001) found that food aid increases imports (Wenner, 2017). According to Oxfam (2005), this dependence on aid causes higher levels of food insecurity and poverty in the long run. Today, recipient countries are becoming more and more aid dependent mainly because many of them are specialised in non-food products like cocoa and coffee and also because food imports are often below the domestic price by severely harming local farmers (Mousseau, 2005). Barrett and Maxwell (2005), instead, state that aid dependency is not a proved fact and that the amount of food aid flows is not sufficient to make recipients dependent on them, even though they contribute significantly to combat hunger.

Unlike programme food aid, targeted food aid is less investigated in the literature, however it is still possible to analyse its impact on local food production and imports. Targeted food aid may lead to the fall in domestic production when it is provided for free to non-poor beneficiaries, to whom it was not initially intended to, or when recipients receive extra amounts of food aid that is later sold below the market price to non-poor recipients (Lowder, 2004). Consequently, these facts may generate a shortfall in the quantity of food demanded by the local market. Furthermore, it can be stated that these disincentive effects are driven by the extent to which food aid targeting represents a successful measure in avoiding market distortions.

Regarding food imports, targeted food aid seems to have a weaker effect than program food aid. This is due to the fact that recipients of the former are poor and could not afford to buy food imports. Herrman et al. (1991) show that, in case of monetised targeted food aid, its impact may vary according to the way in which local government invests the revenues deriving from the monetisation.

As this assertion may suggest, government policies, as well as economic scenario and geography, play a critical role in understanding the relevance of food aid and its impact (Alvi and Senbeta, 2012; Del Ninno, 2005). The institutional architecture of the involved countries (both donors and recipients) may have a critical effect on aid distribution, as a matter of fact corruption and conflict affect significantly the targeting of food aid (Bourguignon and Sundberg, 2007). According to some studies, it is considered a driver for conflict since it may, for example, support certain groups unevenly or facilitate the access to resources to rebels (Dippold, 2016). Thus, food aid misappropriation may constitute the trigger for conflict in recipient countries.

#### A “donor-oriented system”

Targeting is one of the most discussed aspects in the food-aid-related literature and evidence on its effectiveness to target neediest countries is quite mixed. Shapouri and Missiaen (1990) demonstrate that food aid is driven not just by donors’ interests but also by economic conditions of recipient countries. However, most studies show that food aid is relevantly driven by the interests of few agents and businesses representing those that enjoy a privileged access to the procurement system, in addition to humanitarian motives (Barrett and Maxwell, 2005; Clay and Stokke 1995, Mousseau, 2005). Some of these interests behind food aid provision include: peace promotion, market expansion and fostering international cooperation (Dippold, 2016). Furthermore, Diven (2001) and Barrett (2001) found that food aid, especially the US one, and recipients’ food production are not significantly correlated and that the allocation of the former is just weakly progressive, that is provided to neediest countries. Other studies state that food aid provision is critically affected by food prices and donors’ agricultural surpluses (Diven, 2001; Gilbert, 1996; Webb, 2000). Especially in the United States, influential agribusiness organisations can exert much control on food aid composition and, therefore, they consider food aid as a safety valve to dispose surpluses (Oxfam, 2005). Concerning targeted food aid, it is more addressed to countries in need but donors sometimes tend to prioritise high profile recipients in order to get more media attention (Lowder, 2004).

### Cyclicality

According to Mousseau (2005), food aid provision shows a procyclical pattern, as a matter of fact the author has demonstrated that food aid flows from donor countries decrease when food prices are high by showing, consequently, a negative correlation between food aid provision and food prices and when food supplies are scarce. Since food aid is needed more when supplies are scarce, the level of food aid provision should be positively correlated with food prices. The above-discussed theory is also supported by Benson (2000) who discussed also the resulting incapacity of food aid to reduce transitory food insecurity. Lavy (1992), instead, points out that emergency food aid is countercyclical since it responded to cereal shortages in the Sub-Saharan region. Barrett and Heisey (2002) found this countercyclical component in multilateral food aid channelled through the WFP, as well. This leads to the conclusion that food aid (specifically programme food aid) is mostly driven by the interests of businesses located in donor countries (Mousseau, 2005).

### Consumption levels and consumption smoothing

Food aid can considerably affect consumption patterns in recipient economies because a wider range of food can be chosen by beneficiaries and is often linked to increases in consumption levels (Dayton-Johnson & Hoddinott, 2004; Matongera et al, 2017). However, despite the positive effects on consumption, food aid can hinder long-term food security at the same time (Gilligan & Hoddinott, 2007).

Investigating the impact of food aid on consumption smoothing is substantially related to the study of food aid procyclicality. For instance, a procyclical trend may entail inability to stabilise consumption fluctuations since assistance is not delivered when it is needed the most (Gupta et al., 2003). However, food aid studies presented mixed evidence regarding its effect on consumption smoothing (Barrett, 2006a). Egler (2015) and Gilligan and Hoddinott (2007) argue that a positive relationship exists between these two factors when analysing food assistance provision in Ethiopia and, according to Awokuse (2010), the same phenomenon occurs with food-for-work programs. In addition, emergency food aid is often deemed as an instrument for short-term consumption

smoothing (Egler, 2015; Matongera et al, 2017). According to Singer (1989), food aid targeting represents an important element affecting consumption stabilisation, whereas Dercon and Krishnan (2003) state that food aid can smooth consumption in spite of ineffective targeting.

#### A late response

Eventually, several literature works support the idea that food aid responds slowly to food emergencies (Barrett and Maxwell, 2005; Kuhlitz and Abdulai, 2012; Mousseau, 2005). Barrett and Maxwell (2005) focus mainly on the slow response of food aid during the Niger's food crisis in 2005, whereas Kuhlitz and Abdulai (2012) and Mousseau (2005) analyse US food aid's response time and state that US emergency food aid takes, on average, five months to reach recipient countries and that some temporary shocks are ignored by the United States.

As previously discussed, food aid has experienced a significant transition especially during the last decade. As a matter of fact, it has been subject to a substantial untying process and great contribution to it has to be conferred to the literature. Most food analysts have argued the negative impacts that in-kind food aid may cause on recipients' economic and socio-political environment and this, accordingly, has critically shaped the implemented food aid approaches and policies (Elliott and McKitterick, 2013). Much attention has been given to this matter since government revenue is significantly affected by food aid provision, for instance the monetisation of food aid can represent an important contributor (Gupta et al., 2003).

The literature played a critical role in shedding light on the real nature of food aid which was indeed implemented, especially from the US, as a form of export subsidy in order to avoid the restrictions applied at the international level (Kneteman, 2009; Oxfam, 2005). As a matter of fact, several actions were taken by the international community, for example the EU proposed that food aid should be included in the forms of export subsidy which the Subsidies and Countervailing Measures (SCM) agreement was committed to eradicate. However, an agreement was not reached at the WTO level, as witnessed by the

Doha Round's collapse. Tied food aid, if not protected by the Uruguay Round Agreement on Agriculture (AoA), could, anyway, be contrasted by challenging it under the WTO dispute settlement system as prohibited by the SCM agreement (Kneteman, 2009). Even if immediate substantial changes did not occur, food aid studies put the transformation process into motion and this need for renovation became more and more relevant. For example, the Food Aid Convention, as previously discussed, was renegotiated in 2012 and it was renamed Food Assistance Convention. The original FAC was strongly criticised by food aid analysts since it did not reflect the changing trends and exclusively depicted tied food aid reality (Harvey et al., 2010). The new version, instead, entails a wider range of food aid, such as untied and non-monetised food aid, and local and triangular purchases. Moreover, it encompasses a larger number of commodities and products necessary to meet dietary energy requirements (United Nations, 2012).

## **Chapter 2. Food aid flows**

### **2.1. Donors**

Food aid has been subject to a continuous evolution over time, however the key donors running the game have remained quite unchanged. The first place is taken by the United States, which, as it will be discussed in depth later, provides the largest amount of food aid worldwide and differentiates itself significantly in terms of quantity with respect to other donors. The latter include mainly: the EU institutions, Germany, the United Kingdom, Canada, Japan and the World Food Program. After providing a brief introduction regarding the top donors of food aid, it will be analysed more in detail through data extracted from the OECD Creditor Reporting System (CRS) and the WFP International Food Aid Information System (INTERFAIS) data systems and with the support of graphs.

Firstly, special consideration has to be given to the United States due to its predominant role in the global scenario of food aid for decades. US policy on food aid has always been contrasting to those implemented by other agents and subject to heavy criticism. Unlike other donors, US food aid is indeed mostly provided in commodity form through US flag vessels (Harvey et al., 2010), by neglecting, accordingly, other (more efficient) delivery modes like local and regional purchases and payment instruments like cash transfers and vouchers. As well as the issue of tied procurement, that is tying food aid to procurement in the US (Kneteman, 2009), monetisation is a criticised component of US food aid, specifically the developmental one. For instance, selling in-kind food aid in the beneficiaries' markets for local currency can have a negative impact on local economies and lead to significant market distortions (Mousseau, 2008).

Another important donor is the European Union institutions, which rank second. Regarding food aid, the European Commission is the body that is mainly concerned with it. As it will be analysed later, EU food aid consists mostly of emergency food aid which is managed and monitored by Humanitarian Aid and Civil Protection (ECHO) and then channelled through NGOs and multilateral agencies. The EU approach shows a significant divergence from the US one under different aspects, for example the EU

focuses substantially on untied food aid (i.e. non in-kind food aid) and one of its main objectives is to avoid recipients' dependency on aid (Meliksetian, 2011). Many other donors share the approach implemented by the EU institutions, like for example Germany and the United Kingdom. Both countries, for instance, support the principles and policy established by ECHO and promote the abandonment of tied food aid (Harvey et al., 2010).

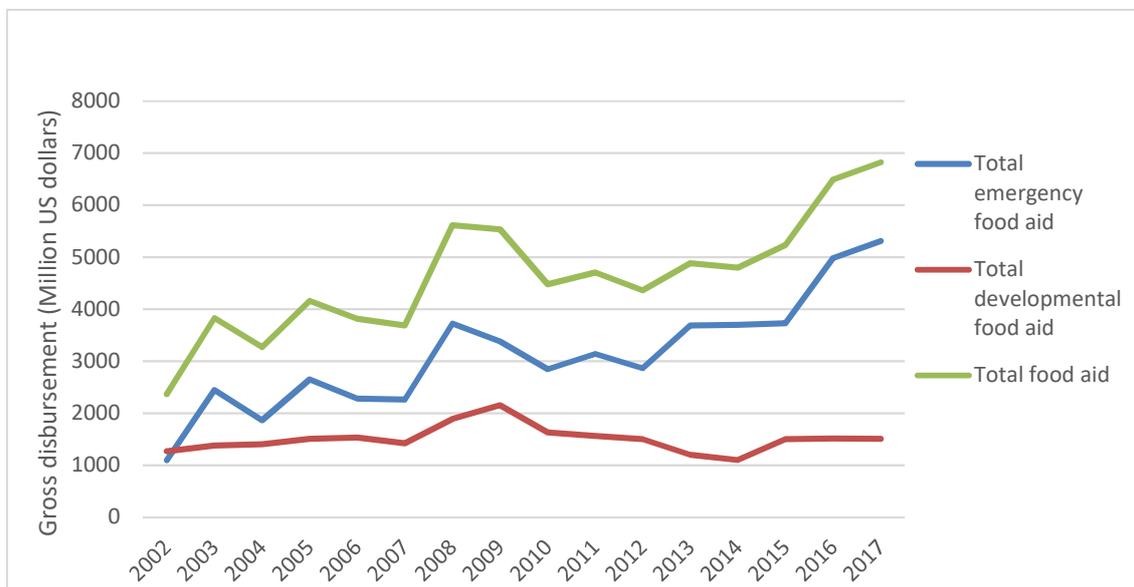
By looking outside the European continent, Canada and Japan play an important role among food aid donors, the former especially in the case of humanitarian assistance while the latter in developmental food aid. By focusing on Canada, Global Affairs Canada, ex Canadian International Development Agency (CIDA), is the body which manages all the food-aid-related activities and ensures an effective cooperation with the UN WFP and other multilateral agencies. Moreover, CIDA's efforts are shifting more and more toward untied food aid, by prioritising, thus, financial support rather than in-kind food aid and it is significantly encouraging transparency on donors' actions (Harvey et al., 2010). Concerning Japan, its food aid policy is established by the Ministry of Agriculture and the Ministry of Foreign Affairs. Moreover, Japan provides food aid both in bilateral and multilateral assistance form and it has become one of the key WFP contributors over the years. According to the Japan International Cooperation System (2015), Japan's food assistance is provided on a grant basis and it is implemented in order to purchase grains, such as wheat, rice and maize for poor and food insecure countries. Furthermore, JICS acts as a recipient governments' agent and manages the whole commodity procurement process (Japan International Cooperation System, 2015).

As previously mentioned, the UN WFP represents a significant agent in the global food aid arena. As a matter of fact, it is the major partner of most donors in providing both emergency and development food aid. Its food-aid-related activities are linked more and more to vouchers and cash transfers, as witnessed also by the general pattern characterising the main food aid donors, but to emergency aid as well (Food Trade and Nutrition Coalition, 2005). Great attempts are also being made to achieve a higher level of coordination and cooperation and to reduce the potential negative effects of food aid on local economies (Harvey, 2010).

After having provided an oversight regarding the key food aid donors and their implemented policies, worldwide food aid provision will be analysed according to the

OECD and WFP data during the time interval 2002-2017. By taking into consideration the total food aid provided globally in terms of gross disbursement (US dollar, constant prices), an increasing trend can be identified, which is characterised by a significant peak in 2008, year in which the global food crisis was critical (Fig. 2.1). It can be observed that significant changes are also present in 2003, 2010 and 2016 and the total value of food aid has increased by more than 188% during the selected time interval. From the graph (Fig 2.1), it can be noticed immediately that emergency food aid has a more relevant impact on total food aid than developmental one and the first two show, furthermore, a similar pattern.

Fig. 2.1. Total food aid, gross disbursement (Million US dollars), 2002-2017

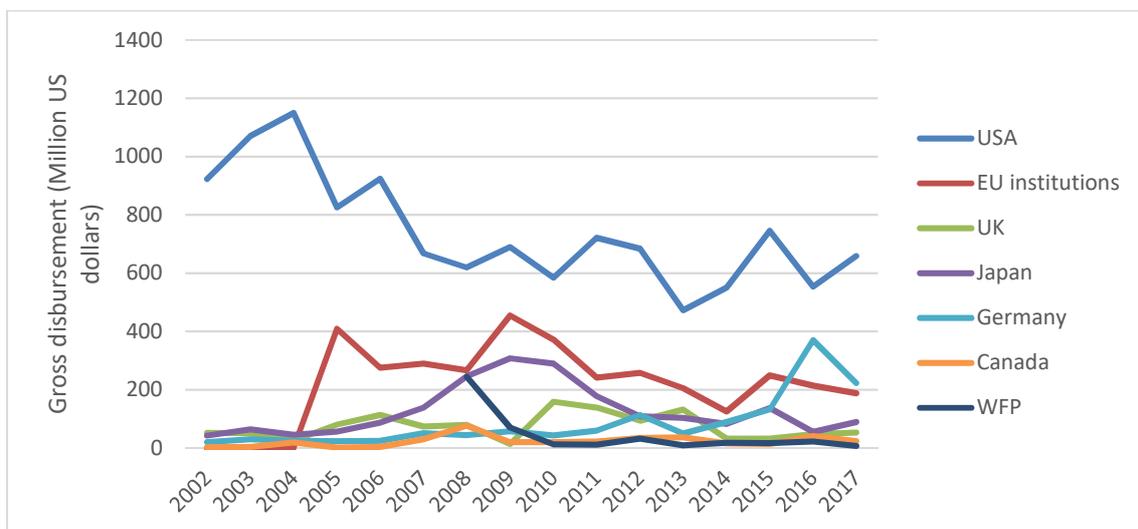


Source: own elaboration based on data from OECD.Stat (2019)

It is now important to break down total food aid into development and emergency food aid and analyse them separately. Regarding developmental food aid, it shows a slightly upwards trend in terms of gross disbursement and the greatest variations occur in the period between 2008 and 2015, whereas the trend is quite steady during the remaining years (Fig. 2.2). In addition, the graph shows that the highest point is reached in 2009 while the lowest one in 2014. As illustrated from the graph (Fig. 2.2), developmental food aid is mostly delivered by the United States, the EU institutions, Germany and Japan and, as it can be easily noticed from it, the amount of gross disbursement spent by the US is

much greater than that spent by other donors. From 2002 to 2006, US disbursement in developmental food aid accounts for about 70% of the global one, while from 2007 it significantly decreases. However, the USA continues to disburse money on developmental food aid at a substantially higher level than the other donors, for instance its contributions represent, on average, the 50.3% of the total ones from 2002 to 2017. US disbursement shows a decreasing trend and, as for other food aid donors, significant changes occur during the selected period of time. Unlike the total developmental food aid trend, US developmental food aid does not reach a critical peak in 2008, it is characterised, instead, by a reduction in gross disbursement. This pattern is also shown by other donors, such as the EU institutions and Germany, whereas the opposite occurs in the UK, Japan and Canada.

Fig. 2.2. Developmental food aid by donor, gross disbursement (Million US dollars), 2002-2017

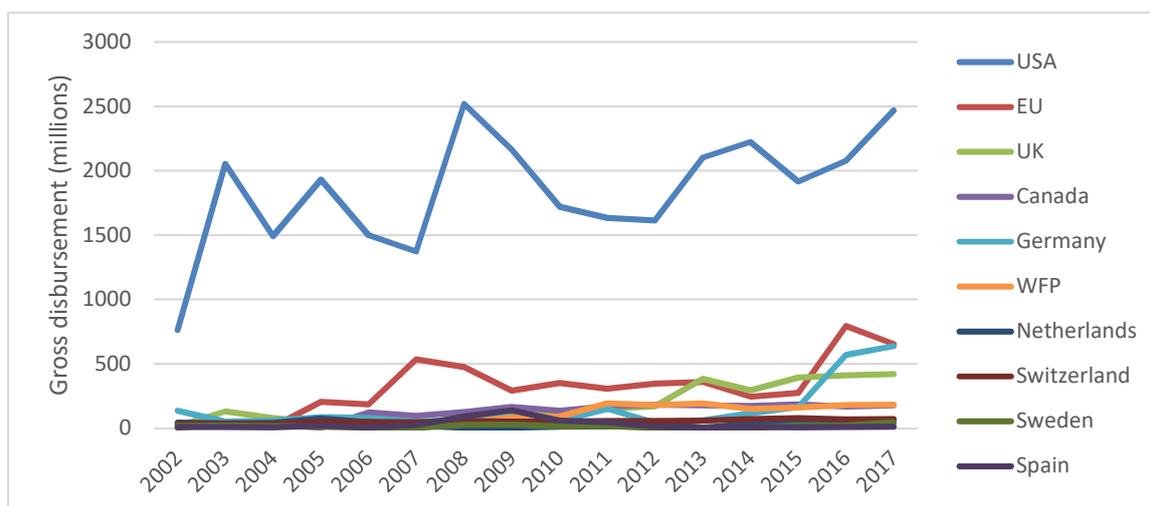


Source: own elaboration based on data from OECD.Stat (2019)

Regarding emergency food aid, the main donors are pretty much the same as for developmental food aid and the United States and the EU institutions rank first and second, respectively. However, some important donors are different, as a matter of fact the Netherlands, Sweden and Switzerland play a more significant role in the case of emergency food aid, whereas Japan is not present among the top donors. Also for this

kind of food aid, much relevance has to be given to the US due to its predominance in terms of gross disbursement. In this case, US disbursement is characterised by an increasing trend and several peaks during the analysed time interval, especially in 2003 and 2008. These two peaks are also reflected in the graph concerning total food aid. Regarding the trends, the disbursements of the other top donors present, to different extent, an upwards trend as well. Besides, US disbursement constitutes a higher share of the world disbursement of emergency food aid than that related to developmental food aid. For instance, it accounts, on average, for almost 62% of the global emergency aid disbursement from 2002 to 2017.

Fig. 2.3. Emergency food aid by donor, gross disbursement (million US dollars), 2002-2017

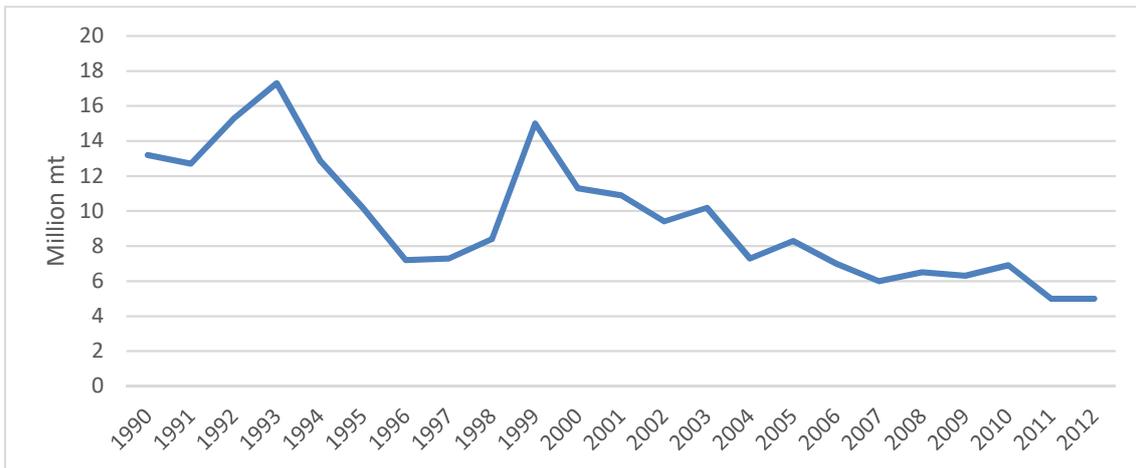


Source: own elaboration based on data from OECD.Stat (2019)

By looking at the INTERFAIS data provided by the WFP, however, significant divergencies can be identified in relation to the above-analysed OECD data. Before discussing about their differences, it is important to underline that the INTERFAIS data are related to the period 1990-2012 and they are measured in metric tons (mt). As illustrated by the graph (Fig. 2.4), total food aid provision shows a decreasing trend and, by 2012, it has decreased by about 62%. Significant peaks have occurred in 1993 and 1999, when the Food Aid Convention was established and set the minimum contributions for its signatories, while critical shortfalls have been registered from 1994 to 1996, in 2000 and 2004. Fig. 2.1 and Fig. 2.4 show, accordingly, opposite trends and this may

depend on the measure unit taken into account, since food aid is shifting from in-kind form toward a more cash-based approach and gross disbursement may, accordingly, reflect better the actual reality.

Fig. 2.4. Global food aid deliveries (Million mt), 1990-2012



Source: own elaboration based on data from World Food Program (2013), p. 9

### 2.1.1. Approaches and eligibility

In this section, the most significant approaches and policies regarding food aid will be analysed. In addition to their relevance in the global food aid scenario, the following donors have been taken into account due to their diversification in terms of institutional nature and geographical area.

#### *The United States*

As it will be analysed later, the United States is the most significant donor of food aid, both developmental and emergency one, nowadays. The history of US food aid, however, dates back to over sixty years ago and the approach implemented was, in fact, not so different from the present one. The US approach on food aid was initially based on the “warm glow” idea, that is the vision of food aid from a charitable point of view (Food Trade and Nutrition Coalition, 2005), which led to the perpetuation of food aid provisions in the long run by generating critical negative effects on developing countries, including

aid dependency. However, US food aid was later considered as a tool to satisfy domestic political and economic interests (Congressional Research Service, 2018). For instance, the main purpose of food aid provision became selling agricultural surpluses to developing countries since the US invested significantly in domestic agricultural productivity in the mid-20<sup>th</sup> century and technological advances replaced animals employed in the farms to their feeding vast land areas were destined. Moreover, agricultural activity, which was hindered previously by World War II, started again during the '50s by contributing to further surpluses (Provost & Lawrence, 2012). A significant example is represented by the huge shipments of US food aid to Russia in the '90s which were related to decreasing levels of commodity prices and critical US food production. Moreover, food aid was used by US rice producers as an escape route when production was massive and prices were low. For example, rice exports included in food aid initiatives accounted for about 10% of US total rice exports during the 1997-2005 period, while the former reached 20% of American rice exports when prices were significantly decreasing (Oxfam, 2005). A similar behaviour characterised the US cereal exports, as a matter of fact food aid represented 4-7 per cent of cereal exports in 1995-1997 when food prices relevantly increased, whereas it accounted for 12-20 per cent of cereal exports in 1999-2000 when cereal prices fell (Oxfam, 2005). In order to support domestic food surpluses, US food aid was and is still required to be purchased in the United States. However, the United States does not dispose of the same quantities of food surpluses and food aid consists of less than one percent of US total agricultural exports (Schaefer, 2018). Nevertheless, food aid remains a tempting means when supply starts to increase and prices to reduce. Furthermore, 50% of US food aid has to be delivered by US-flagged ships, by making its provision way more expensive and less time efficient since it neglects delivery modalities like local and regional purchases (Harvey et al., 2010). According to Schaefer (2018), food aid shipment on US-flagged vessels is 40% more costly than foreign competitors. Another important aim encouraging US food aid was the expansion of foreign markets, that was implemented through subsidised food aid with the objective to make recipients dependent on food imports (Murphy and McAfee, 2005). In addition to concessional sales of food aid, monetisation represents a critical trait of US food aid, as a matter of fact the US allows Private Voluntary Organisations (PVOs) to sell food aid to recipient countries in order to support their development projects.

Reliance on tied food aid still represents a distinctive element in US food aid policy and, due to its severe impacts on recipient economies, it is not positively accepted internationally. This tight bond shown by the US with tied food aid is significantly linked to the relevance which is given to the minimum levels of domestic procurement, shipping and processing (OECD, 2005). So, US resistance to change and implement a new food aid policy following the best practices recognised at the international level, as many donors are actually doing, is mainly related to the beneficiaries of the existing system, who are certainly willing to maintain the status quo. These include: agribusiness firms, shipping companies and US NGOs which are known as the “iron triangle” due to their controlling approach on food aid (Hicks, 2013; Murphy and McAfee, 2005). In addition, the United States’ ability to keep on enacting its approach is also linked to the influential position, arising from consistent US funding, that enables the US to control international agencies and NGOs. For example, the most important international food-aid-related NGOs, such as CARE, World Vision and Catholic Relief Service, are US based (Mousseau, 2005).

The concept of food aid appears first in the US legislation in 1954 when Public Law 480, that is the Agricultural Trade Development and Assistance Act, was approved by the US Congress. It recognised concessional sales of commodities and food aid donations to the poorest and most food insecure countries (Congressional Research Service, 2018; Kneteman, 2009; Murphy and McAfee, 2005). Factors, such as share of population living on less than the absolute poverty line (\$1.90 a day nowadays), percentage of children stunted and share of severely food insecure population, are now usually taken into consideration in selecting recipient countries (USAID, 2018b). Today, there are several programs that are food aid related in the US and they are implemented by both USAID and the US Department of Agriculture (USDA). The most significant programs enacted by USAID are: the Food for Peace program (formerly Public Law 480 Title II), Development Assistance and the International Disaster Assistance (IDA). The first one is concerned with both emergency and development food aid aiming at fighting against food insecurity and poverty, and deals mostly with agricultural commodities purchased on the domestic market. Like any other USAID program, it has to be authorised through the US Farm Bill which has to be approved by the Congress every five years (USAID, 2018c). USAID’s Development Assistance performs a complementary function to Title II and

implements development projects at the community level. On the other hand, IDA refers exclusively to emergency food aid necessary during crises or for prevention purposes. USDA, instead, implements the following food-aid-related programs: Food for Progress, McGovern-Dole and Local and Regional Food Aid Procurement (LRP). Their main objective is to increase the income of farmers in recipient countries and enhance domestic agricultural sector, by ensuring access to local markets and an adequate infrastructure system and improving the level of education and expertise (USAID, 2017b).

Furthermore, USAID is implementing a program called Feed the Future aiming at increasing food security levels in developing countries while freeing them from reliance on food aid. Recipients, including countries like Ethiopia, Niger and Bangladesh, are selected by taking into account the following factors: local resources, potential for growth deriving from food aid programs, partnership opportunities and level of local government commitment (USAID, 2017a). Moreover, this initiative is characterised by two main pillars which are: partnerships and innovation. For instance, USAID is significantly engaged in establishing partnerships with several organisations, US government agencies and individuals with skills and expertise in different sectors. Concerning innovation, it is critically investing in research fundamental for future advancements in agriculture thanks to the collaboration with innovation centres. As well as the Feed the Future initiative, USAID has enforced its engagement in fighting poverty and hunger through the enactment of the Global Food Security Act (GFSA) in 2016 (USAID, 2016b).

### *The European Union*

The European Union represents one of the most important donors of food aid nowadays, by ranking second after the United States. Unlike the latter, the European Union is and has been strongly focused on untied food aid by favouring local and regional purchases, especially from the 1996 Regulation on Food Aid Policy and Food Aid Management (Meliksetian, 2011). Before this year, the EU heavily relied on exports of surplus stocks. Accordingly, this food aid untying enables a rapid response to crises, cost reductions and less negative impacts on recipients' socio-economic conditions. The EU approach is also linked to the concept of food sovereignty, that is a country's power to implement policies aiming at fighting hunger within its territory (Food Trade and Nutrition Coalition, 2005).

For instance, by relying on triangular and local purchases, the EU seeks to avoid food aid dependence and foster good governance in recipient economies.

EU food aid policies and operations are principally managed by the European Commission (EC). By referring specifically to emergency food aid, the European Commission Humanitarian Aid & Civil Protection (ECHO) manages, allocates and controls it. In addition, the EU developed a food aid policy called “The European Consensus on Humanitarian Aid” in response to the critical number of population severely food insecure in the world. It constitutes the fundamental framework guiding EU humanitarian actions in response to crises (European Commission, 2019b).

Developmental aid plays an important role in the EU food aid policy too, even if to a lesser extent with respect to some decades ago. Its essence is embodied in the European Consensus on Development, that is a framework harmonising development strategies both at the Member State and EU level (European Commission, 2019b). The objective remains to tackle poverty and food insecurity, which is also in line with the Sustainable Development Goals (i.e. set of goals established by the United Nations fostering international development), but the efforts towards effectiveness and transparency seem more and more essential. This assistance is mainly provided through the European Development Fund by applying geographical instruments and the Food Security Thematic Programme which is, instead, focused on a specific matter rather than on a certain geographic area (European Commission, 2019b; Harvey et al., 2010).

Rules governing food aid allocation by the EU are quite clear and specific, by establishing that EU contributions occur just under the following circumstances: when specific levels of acute malnutrition or mortality rates are reached or overcome because of improper food consumption, when extreme coping strategies like sale of productive assets constitute or will constitute a threat to life if they are generated from, or generate, improper food consumption and when vulnerable countries are hit by enduring conflicts and social unrest (Meliksetian, 2011). It is essential to underline that the EU focuses mainly on short-term humanitarian assistance rather than addressing situations of chronic food insecurity, that is inability to satisfy dietary energy requirements over a long period (Harvey et al., 2010).

Unlike other agents involved in food aid provision, the EU is fully aware of its limitations and the extent to which it can perform successfully. For example, it recognizes that long-

term operations are discouraged due to a shortage of human resources (Meliksetian, 2011). However, another important reason behind this discouragement is linked to aid dependency, for instance the EU seeks to minimise recipient countries' reliance on food aid.

A distinctive element characterising EU's food aid policy is represented by transparency (European Commission, 2019b). As a matter of fact, food aid is provided to recipients through NGOs and international agencies and, furthermore, the EU does not allow direct financial operations with single states. Accordingly, this enables the EU to monitor more effectively financial transactions and other data. If single states were involved instead, such control would be more limited and information might be manipulated.

The above-discussed guidelines answer the question: "Where should food aid be provided?" but the question: "To whom should it be provided first?" has not been addressed yet. In order to assess the degree of priority among recipients, the EU takes into consideration several factors such as socio-political environment, food security data from specific databases and ad hoc assessments (European Commission, 2019b). The socio-political perspective plays a significant role on food aid allocation from the EU's point of view, for instance it does not support blanket assumptions regarding recipients' needs, i.e. it does apply a context-related approach (Meliksetian, 2011).

### *Japan*

Japan constitutes an important player in the global food aid scenario as well. Its food aid policy is established by two government bodies in particular, that is the Ministry of Foreign Affairs of Japan and the Ministry of Agriculture, and it dates back to 1968 after the Food Aid Convention's coming into force. Japan's food assistance mainly focuses on the following objectives: responding to the lack of food in developing countries, encouraging sustainable development and promoting peace and stability (Japan International Cooperation System, 2018). The Ministry of Foreign Affairs of Japan (2014) states also in the Official Development Assistance Charter that ensuring Japan's growth and security and improving its foreign relations are significant aid objectives as well. For instance, like many other donor countries, Japan is implementing a food aid

policy which is significantly focused on international cooperation with multilateral non-profit agencies, NGOs and other state governments, as well as being in line with the UN principles concerning poverty and hunger eradication (Ministry of Foreign Affairs of Japan, 2017). Recipient eligibility is based on the classification of poorest countries developed by the World Bank and FAO (they will be defined more in detail in the next chapter) and in addition to this, the Japanese government takes into consideration also recipients' food security levels, socio-economic conditions, amount of foreign debt contracted, and bilateral relations with Japan (Ministry of Foreign Affairs of Japan, 2012). Moreover, food assistance is implemented on grant terms both bilaterally and multilaterally (by cooperating with international organisations) by the Japanese government which acts as an agent on behalf of recipients and deals with food procurement (Japan International Cooperation System, 2015). Regarding bilateral food aid exclusively, recipient governments have to use profits from the sale of commodities in the local market, which will constitute counterpart funds, in order to foster development programs. In multilateral aid, instead, the deposit of counterpart funds by recipient countries is not mandatory (The Ministry of Foreign Affairs of Japan, 2012).

### *Canada*

Canada represents another significant food aid donor and, like the EU and the World Food Program, as it will be discussed later, it decided to implement an important transition toward untied food aid in recent years. For example, over 50% of Canadian food aid had to be sourced domestically before 2009 (Government of Canada, 2017). By promoting this shift, Canada has provided its partners with a higher degree of flexibility with regard to aid allocation and modalities (Harvey et al., 2010). Although the relevant aid generosity implemented by Canada, its food aid flows, however, have been very volatile over the years and this was significantly driven by Canada's incapacity to apply long-term strategies. Consequently, it has led to the provision of less effective food aid programs (Margulis, 2017).

Canada's commitment to fight poverty and hunger has become more relevant particularly after the 2007-2008 world food crisis. For instance, the Canadian International Development Agency (CIDA), now Global Affairs Canada, developed the Food Security

Strategy in 2009 aiming at responding effectively to food emergencies and ensuring the availability of safe and nutritious food in the long run, as well as strengthening the international food aid system (Harvey et al., 2010). As far as the Canadian food aid policy is concerned, transparency and cooperation with multilateral organisations, NGOs and state governments are of crucial importance in order to improve the actual system and, accordingly, tackle food insecurity. The WFP and the Canadian Foodgrains Bank assume a critical value among the previous partners, especially concerning emergency food aid (Government of Canada, 2017). For instance, this kind of assistance is usually channelled through the above-mentioned partner agents, in addition to the Central Emergency Response Fund and the Red Cross Movement. Another significant element pursued by Canada food aid policy is research and development in the agricultural sector, as a matter of fact, according to its vision, expertise and new technologies have to be shared with recipient countries in order to improve the ongoing situation.

Regarding the allocation of development food aid, Canada chooses recipient countries by taking into consideration the idea that the maximisation of aid results occurs when aid is goal-oriented and harmonised at the donor level. From 2002, recipients of bilateral aid were grouped into the so-called Countries of Focus list, intended to focus more on a limited number of recipients by giving priority to those in greatest need (Margulis, 2017). This list underwent to significant changes and only few countries like Ethiopia and Bangladesh remained continuously in the list. These alterations prove the unpredictability and volatility of the Canadian food aid policy. Unfortunately, Canada has not officially stated the criteria behind recipient selection, however its government has affirmed that it takes into consideration an evaluation of country needs, the adherence to Canada's aid priorities (e.g. food security and economic growth) and the potential to benefit from development aid (Margulis, 2017).

### *World Food Program*

The World Food Program (WFP) represents a key multilateral organisation when discussing about global food aid. Similarly to the US, the WFP dealt mostly with in-kind food aid in the past. However, it has experienced a significant transition from in-kind food aid to a more cash-based food assistance during the last decade (Harvey et al., 2010; The

Oakland Institute, 2008). This shift derives, for example, from the global food crisis, climate change and other global phenomena which significantly contributed to increased uncertainty and vulnerability. It is also important to underline that WFP's food aid projects were mostly supported by US contributions and, therefore, the latter could exert control upon the WFP to a significant extent. According to Mousseau (2005), the WFP tended to prioritise US interests when making decisions regarding recipient countries, aid volumes or supply mode. Another transition which critically affected the WFP's organizational architecture and food aid policy was that from developmental to emergency food aid (Charlton, 2013). As a matter of fact, the WFP defined itself as a development agency in the beginning but, later on, emergency food aid started to play a more and more dominant role at the global level.

Nowadays, its food aid operations are performed according to the WFP 2017-2021 strategic plan, which is strongly in line with the UN Sustainable Development Goals (Jones, 2017). In order to identify populations affected by severe forms of food insecurity, it gathers information by applying both traditional evaluation systems and emergent technologies (WFP, 2019). Face-to-face assessments are very important to perform these studies and they include, for example, emergency food security assessments (EFSA) which are critical especially during immediate crisis (e.g. droughts, floods). A fundamental trait belonging to the WFP is international cooperation, as a matter of fact it works together with state governments, NGOs and UN agencies and it is very committed to share information with its partners (WFP, 2019).

## **2.2. Recipients**

After having provided an analysis regarding food aid donors and their respective food aid flows during the period 2002-2017, it is now important to identify their main recipients, that is where food aid deliveries are addressed. The data discussed later in this section are extracted from the Creditor Reporting System (CRS) database developed by the Organisation for Economic Co-operation and Development (OECD) and related to the above-mentioned period as well. Food aid is measured in terms of gross disbursement (US dollar, constant prices) also in this case.

Nowadays, undernourished people, i.e. people unable to satisfy their dietary needs, represent a lower share of developing countries' population than that registered 25 years ago (FAO, 2016), however, this still remains an issue of paramount importance. As a matter of fact, phenomena such as conflicts, social unrests and climate change lead to significant food emergencies and they are worsening more and more over time. In 2018, for example, 39 countries were part of the list, established by the Food and Agriculture Organization (FAO), of those countries requiring assistance for food and two of them (Senegal and Cabo Verde) were added during the same year. In addition, it is important to underline that 31 countries are African ones (FAO, 2019).

Nevertheless, food insecurity has deeper roots in developing countries. For instance, their economies present some serious deficits which make hunger and poverty inevitable in these places. The unequal access to economic opportunities constitutes a key element in order to study the economic reality characterising developing countries. As a matter of fact, most of them significantly depend on a small number of non-food exportable commodities like tobacco, coffee and cocoa by, accordingly, spending critically on commercial imports from advanced economies to satisfy their basic food needs (Mousseau, 2005). Furthermore, the real prices of these non-food products are registering a decrease and they are becoming more and more volatile, thus, by causing dramatic effects on developing countries and their small-scale farmers (Tew, 2013). As a result, they have fallen into a sort of debt trap, since their export earnings are significantly falling while their dependence on imported goods is increasing. Further constraints are also represented by inefficient, or even absent, infrastructures (e.g. marketing and transport infrastructures) and/or the incapability to meet some qualitative export requirements concerning, for example, packaging or phytosanitary standards (Mousseau, 2005).

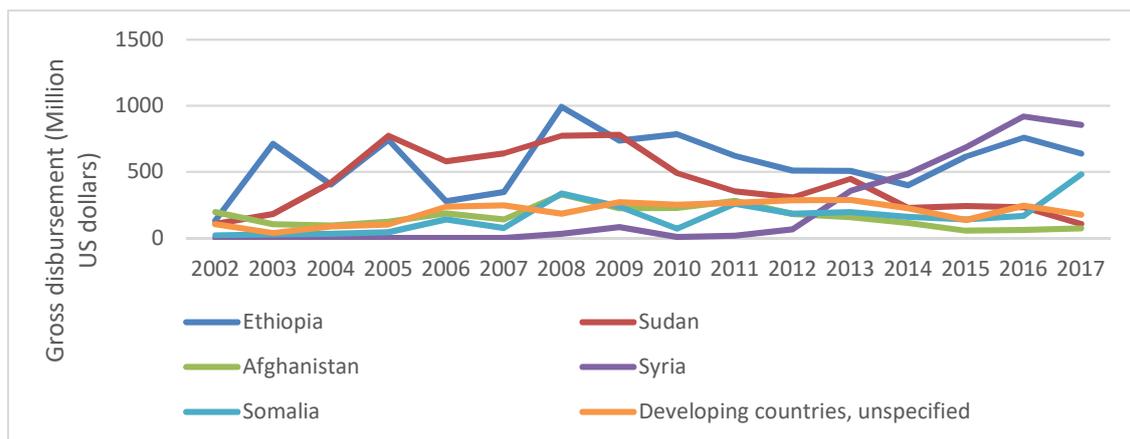
All these factors are dramatically affecting developing countries' economic conditions on ensuring food security at the national level. Food aid, supported also by assistance related to other fields such as health, education and infrastructure, can represent a solution. However, as it will be analysed more in detail later, food aid can cause serious damage to local markets as well, if not implemented in the right way, by, for example, increasing food aid dependency in the long run, disadvantaging small farmers through the fall of domestic prices and by decreasing the level of investment in domestic food production (Food Trade and Nutrition Coalition, 2005). Moreover, it is often criticised not to target

the population who actually needs it by prioritising donors' interests and to change significantly local diets (Wahlberg, 2008; Valdes and Foster, 2012).

After having provided a brief introduction regarding the economic conditions characterising developing countries, it is now important to discuss in depth developmental and emergency food aid flows through data and graphs, by focusing especially on the recipients' side.

Before analysing these two types of food aid separately, an overview about total food aid recipients is needed. The main recipients of both developmental and emergency food aid are: Ethiopia, Sudan, Syria, Somalia and Afghanistan. Ethiopia and Sudan rank first and second and account for 12% and 9% of total food aid, respectively. As shown by the graph (Fig. 2.5), Ethiopia has always been a crucial recipient during the analysed period, for instance, it represents a top recipient together with Sudan until 2013 and with Syria during the remaining years. Undefined developing countries, that is areas where food aid programs benefit several regions, receive also a quite significant share of total food aid that accounts for above 4%.

Fig. 2.5. Global food aid by recipient country, gross disbursement (Million US dollars), 2002-2017

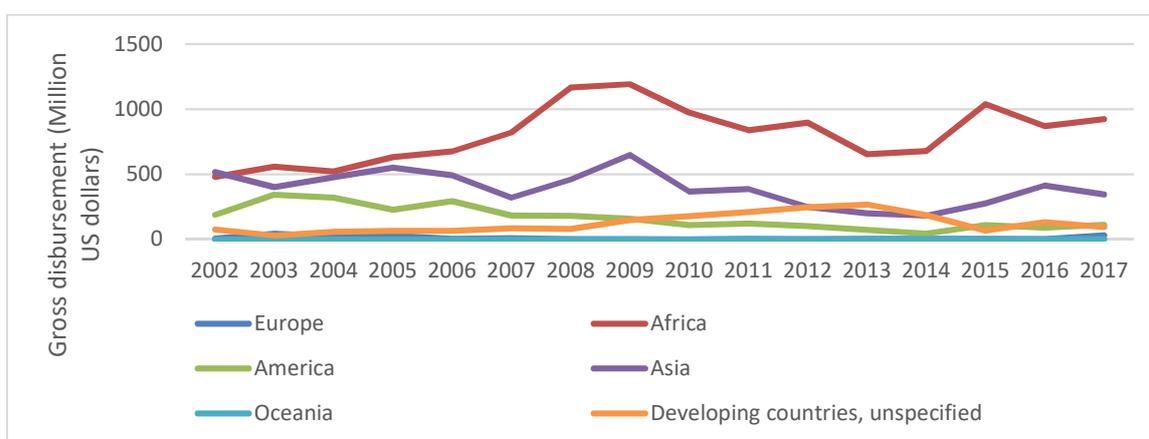


Source: own elaboration based on data from OECD.Stat (2019)

Regarding developmental food aid, recipient geographic areas are first taken into consideration. From the graph (Fig. 2.6), it can be easily noticed that Africa is the continent receiving most food aid and its dominant position starts specifically from 2005,

by becoming more and more relevant. Its highest points are reached in 2008 and 2009, by accounting for about 62% and 55% of global developmental food aid. Asia and America rank second and third respectively and, unlike Africa, both of them show a decreasing trend. Also, by analysing recipients by geographic areas, unspecified developing countries are quite relevant and they “overcome” both Europe and Oceania in terms of gross disbursement destined to them.

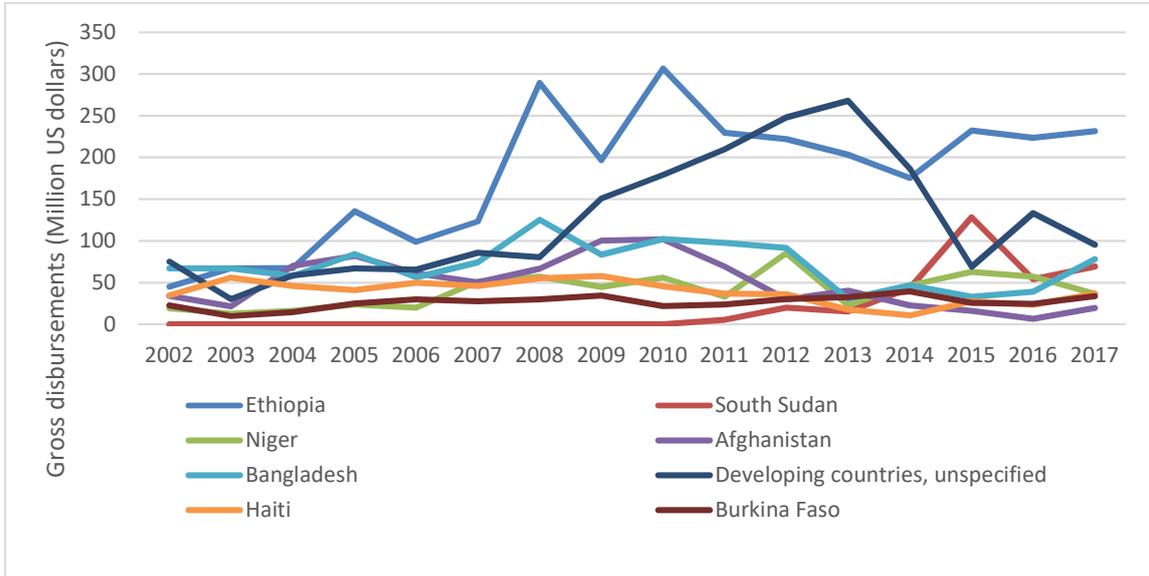
Fig. 2.6. Developmental food aid by recipient geographic area, gross disbursement (Million US dollars), 2002-2017



Source: own elaboration based on data from OECD.Stat (2019)

By focusing now on the country level, developmental food aid is provided mainly to the following six countries: Ethiopia, Bangladesh, Afghanistan, Niger, Haiti and Burkina Faso. These are ranked according to the amount of gross disbursements received from OECD official donors. Ethiopia represents the most important recipient for most of the selected years and, from 2005, it substantially differentiates itself from other recipients, except from undefined developing countries during the period 2012-2014. The highest disbursements addressed to Ethiopia occur in 2008 and 2010 and they account for about 15% and 19%, respectively, of world developmental food aid. As illustrated by the graph (Fig. 2.7), a significant share of it, accounting for about 8%, is also provided to unspecified developing countries which cover a critical role particularly from 2009 to 2014, by reaching the highest point in 2013. Furthermore, the graph shows that most top recipients are characterised by an upwards trend, especially that related to Ethiopia is strongly increasing, while Afghanistan presents the opposite trend.

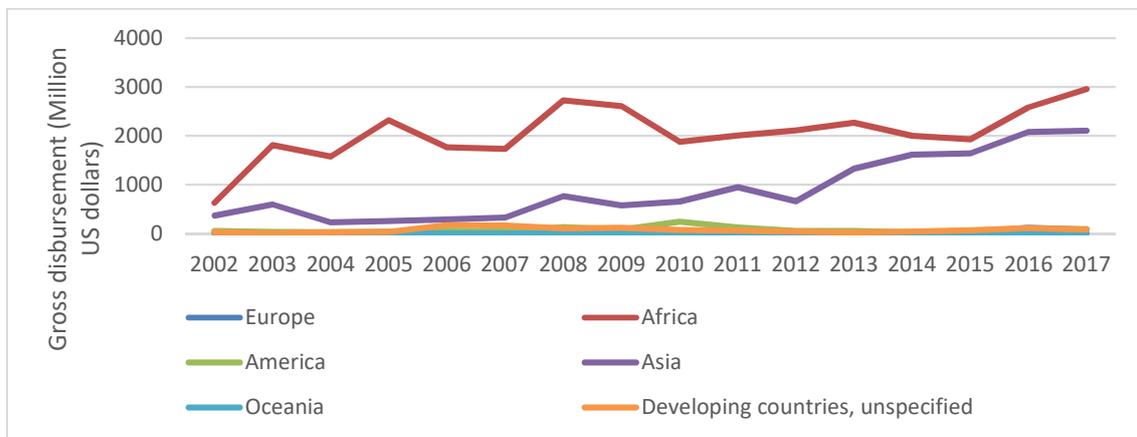
Fig. 2.7. Developmental food aid by recipient country, gross disbursement (Million US dollars), 2002-2017



Source: own elaboration based on data from OECD.Stat (2019)

Concerning emergency food aid, the geographic area, which gross disbursements are mostly addressed to, is Africa and it is then followed by Asia. The former significantly diverges from other areas during the period 2003-2013 and from the following year the gap between Africa and Asia is substantially reduced due to a relevant increase in food aid received by Asia. However, this gap widens again from 2016. In addition, it can be observed that, unlike developmental food aid, both Africa and Asia are characterised by a strongly increasing trend. The remaining areas plus unspecified developing countries are, instead, not much critical in this case.

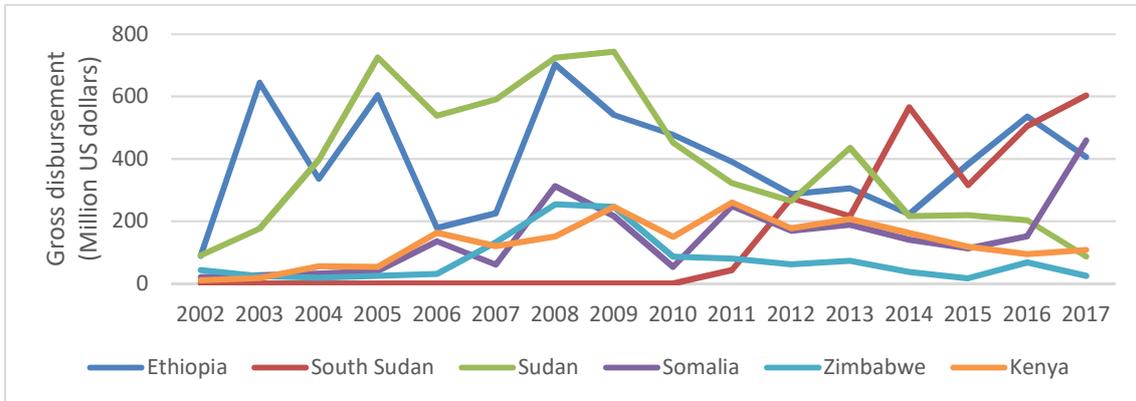
Fig. 2.8. Emergency food aid by recipient geographic area, gross disbursement (Million US dollars), 2002-2017



Source: own elaboration based on data from OECD.Stat (2019)

It is now important to focus on single recipient countries in order to provide a complete analysis about emergency food aid. Because of the high number of critical recipient countries, they have been grouped by geographic area in different graphs (Fig. 2.9 and 2.10) and, as witnessed by the previous graph, Africa and Asia result to be the geographic areas including the most important recipient countries. Concerning Africa, the main recipients are: Ethiopia, South Sudan, Sudan, Somalia, Zimbabwe and Kenya. The graph (Fig 2.9) shows that the predominant recipients are Ethiopia and Sudan during the time interval 2002-2011, since they were significantly plagued by famine, droughts and conflicts (e.g. the war in Darfur). However, their divergence from other recipients then decreases and some countries start to emerge like South Sudan and Somalia due to the burst of conflicts and dramatic climate effects.

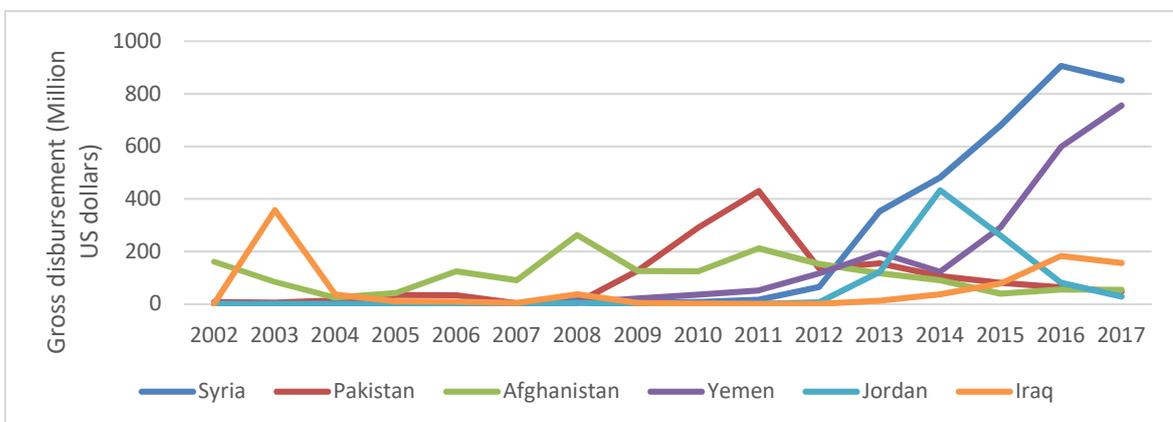
Fig. 2.9. Emergency food aid by recipient country in Africa, gross disbursement (Million US dollars), 2002-2017



Source: own elaboration based on data from OECD.Stat (2019)

Regarding Asia, the most important recipients of emergency food aid are: Syria, Pakistan, Afghanistan, Yemen, Jordan and Iraq. Unlike African countries, there are no Asian countries which significantly diverge from the others over a long period of time, for instance, most of them are quite steady and characterised by one significant peak usually fuelled by conflicts and social unrest (e.g. Iraq, Pakistan and Jordan). However, during the last years, emergency food aid received by Syria and Yemen is critically increasing and, in 2017, it accounts for 16% and 14%, respectively, of the total one. This phenomenon is driven especially by the ongoing harsh conflicts that are severely harming these two countries.

Fig. 2.10. Emergency food aid by recipient country in Asia, gross disbursement (Million US dollars), 2002-2017



Source: own elaboration based on data from OECD.Stat (2019)

After having analysed the top recipients of both developmental and emergency food aid and their relative trends over time, it is now important to discuss further on key developmental food aid recipients, also by taking into account other perspectives, ranging from politics to the economic situation. For instance, factors like Gross Domestic Product (GDP) per capita and Gross National Income (GNI) per capita will cover a central role in the following analysis. Before proceeding with it, it is now essential to provide a brief definition regarding these terms.

GDP is defined as the total market value of all final goods and services produced within a country in a given period and it is a commonly used measure of economic performance of a country (World Bank, 2018). Specifically, GDP per capita is the result of the ratio of total GDP by midyear population. It constitutes a relevant unit to compare average living standards and economic wellbeing across countries, especially when expressed using Power Purchasing Parity (PPP). PPP is an index that compares price levels of goods and services between different countries, belonging both to the same currency area or to different ones, and accordingly it ensures a reliable cross-country analysis (Cheung, 2009). In addition, GDP (PPP) is converted into international dollars since their purchasing power over GDP corresponds to that of the US dollar in the United States (World Bank, 2019).

Gross National Income (GNI) per capita refers to the total domestic and foreign income earned by residents of an economy and it is expressed in US dollars by applying a special conversion method called Atlas method (Todaro & Smith, 2011). It represents a measure of poverty, which will be explained more in depth in the next chapter, and it is applied by the World Bank (WB) to classify countries by income level into: low income (GNI per capita less than \$995), lower middle income (GNI per capita greater than \$995 and less than \$3,895), upper middle income (GNI per capita greater than \$3,895 and less than \$12,055) and high income (GNI per capita greater than \$12,055).

Political stability and absence of violence/terrorism, instead, constitutes an index measuring the perception of the likelihood of events which may lead to political instability and to violence and it includes values from around -2.5 to 2.5 (FAO, 2018). In case of negative value, it means that violence and political instability may likely occur in a specific country. According to FAO (2018), this factor, together with GDP per capita,

may represent a significant indicator of people’s ability to satisfy their dietary needs in one country.

As mentioned previously, the main recipients of developmental food aid (Ethiopia, Bangladesh, Afghanistan) will be analysed further by applying the above-described factors.

### Ethiopia

As already analysed in the previous sections, Ethiopia is the country receiving most food aid (both developmental and emergency food aid) today. It is classified as a low-income country according to the WB since its GNI per capita is equal to \$740, i.e. lower than \$995 (Table 1). The nature of food emergencies will be analysed later in the section dedicated to emergency food aid.

Political situation: Ethiopia constitutes a federal democratic republic nowadays, however it experienced several political phases during its history, for instance it was originally an empire, then it was occupied by Italian military forces (1936-1941) and lived a Communist era until 1991. Ethiopia faced turbulent years under the political aspect, disputed elections and the consequent protests led to severe political instability especially from 2005 to 2015. Later on, Ethiopia underwent a period of reforms and reconciliation when the new Prime Minister Abiy was elected in 2018, who was capable of putting an end to the war against Eritrea (BBC, 2019).

Table 2.1. Summary data related to Ethiopia

GNI per capita (Atlas method), current US\$	740.00
GDP per capita (PPP, constant 2011 international \$)	1,729.93
Population, millions	104.96
Political stability and absence of violence/terrorism (index)	-1.57
Nature of emergencies	Droughts, soil degradation and deforestation (2003, 2015, 2016), migration and crop production fall

Source: FAO (2019), World Bank (2019)

## Bangladesh

Unlike Ethiopia, Bangladesh is considered as a lower middle income country, for instance its GNI per capita is greater than \$995 and less than \$3,895 (Table 2). It can also be noticed that Bangladesh's GDP per capita (PPP) is equal to \$3,523.98 and it is more than three times greater than that related to Ethiopia.

Political situation: Until mid-20<sup>th</sup> century, Bangladesh was part of the British Empire and was then united with Pakistan. In 1974 it gained its independence and, since then, it has constituted a parliamentary constitutional republic. Political dysfunction has significantly characterised the political scenario in Bangladesh. As a result, it has led to social unrest and internal conflicts, particularly in 2005 and 2008, and these were also fuelled by relevant migration flows coming from Myanmar (BBC, 2019). Nevertheless, Bangladesh was able to improve its economic presence worldwide by establishing economic relations with allies like India, China and Russia.

Table 2.2. Summary data related to Bangladesh

GNI per capita (Atlas method), current US\$	1,470.00
GDP per capita (PPP, constant 2011 international \$)	3,523.98
Population, millions	164.67
Political stability and absence of violence/terrorism (index)	-1.24

Source: FAO (2019), World Bank (2019)

## Afghanistan

Afghanistan is a low-income country according to the WB because its GNI per capita is lower than \$995 (it is equal to \$560). Concerning GDP per capita (PPP), its value, corresponding to \$1,796.39, is slightly higher than that of Ethiopia.

Political situation: Afghanistan constitutes a presidential Islamic republic from 1973 after decades of constitutional monarchy. However, this shift did not ensure stability from the political point of view, for instance social unrest and the presence of terroristic groups severely threatened democracy. The period 2002-2017 has been characterised by harsh conflicts which have become worse and worse especially during the last years, when Taliban forces have been taking over more territory. Furthermore, a weak and inefficient

government and corrupted elections have led to a fragmented country, population discontent and social unrest.

Table 2.3. Summary data related to Afghanistan

GNI per capita (Atlas method), current US\$	560.00
GDP per capita (PPP, constant 2011 international \$)	1,796.39
Population, millions	35.53
Political stability and absence of violence/terrorism (index)	-2.75

Source: FAO (2019), World Bank (2019)

After having analysed developmental food aid recipients, it is time to discuss more in detail about top recipients of emergency food aid (i.e. Ethiopia, Sudan and Syria), by focusing on the nature of food emergencies as well.

### Ethiopia

As mentioned before, Ethiopia represents the recipient receiving the greatest share of emergency food aid, as well as developmental one.

Nature of food emergency: Droughts had a huge impact on local crops during the analysed period, particularly in 2003, 2015 and 2016, and they were usually combined with soil degradation and deforestation. Food emergencies rose also because of the influx of migrants, extreme poverty and a relevant fall of crop production in certain areas (FAO, 2019).

### Sudan

Sudan is classified as a lower middle income country by the World Bank (its GNI per capita is equal to \$2,380). In addition to GNI per capita, it is characterised also by the highest level of GDP per capita (that is \$4,466.50) with respect to the other analysed recipients.

Political situation: Before gaining independence in 1956, Sudan was a country governed by British and Egyptian forces. Despite the occurrence of this significant event, the country faced severe political turmoil considerably fuelled by relevant differences in terms of religion, politics and culture with the southern region which will become

independent in 2011. Today, Sudan constitutes a federal presidential republic run by a military junta.

Nature of food emergency: Several food emergencies occurred over the years in Sudan and some of them, like the war in Darfur (2004-2009), were quite persistent. Tensions were also generated by the conflicts with Chad and in Southern Sudan (2009). In addition, significant food insecurity in Sudan was linked to epidemics, failure of crop production and to the 2013 severe flood (FAO, 2019).

Table 2.4. Summary data related to Sudan

GNI per capita (Atlas method), current US\$	2,380.00
GDP per capita (PPP, constant 2011 international \$)	4,466.50
Population, millions	40.53
Political stability and absence of violence/terrorism (index)	-2.38
Nature of emergencies	War in Darfur (2004-2009), yellow fever (2005), conflict in Southern Sudan (2009), major flood (2013)

Source: FAO (2019), World Bank (2019)

### Syria

Several data related to Syria are, unfortunately, not available on international agencies' databases. Nevertheless, an analysis, even if limited, can still be provided.

Political situation: Syria became a presidential republic in 1945 since it constituted one of the UN founding members after decades of French military presence in the country. Post-independence era was characterised by critical political instability witnessed, for example, by the several coups occurred. In the last decade, tensions even intensified due to the burst of an armed conflict which made Syria one of the most dangerous countries in the world.

Nature of food emergency: A dramatic conflict has been taking place in Syria from 2012 which has been leading the country to a state of significant food emergency. The critical fall in food supplies and severe droughts have also contributed to an alarming level of food insecurity (FAO, 2019).

Table 2.5. Summary data related to Syria

Population, millions	18.27
Political stability and absence of violence/terrorism (index)	-2.91
Nature of emergencies	Conflict, severe droughts and critical fall in food production (2012- present)

Source: FAO (2019), World Bank (2019)

From this analysis, it results that most recipient countries of development and emergency food aid are low-income countries according to the World Bank, except for Bangladesh and Sudan. In addition, all the recipients, regardless of the food aid type received, present alarming levels of political instability and social unrest. From now on, a special focus will be set on development food aid since it represents the type of food aid that is more likely to be influenced by economic and political interests diverging from mere development purposes. On the other hand, emergency food aid is indeed addressed more to countries which are facing actual food emergencies.

### 2.3. Donor-recipient bilateral relations

In the previous section, both a qualitative and quantitative analysis regarding food aid recipients has been provided and it has resulted that the main recipients of developmental food aid during the 2002-2017 period are: Ethiopia, Bangladesh and Afghanistan. In the list of poorest countries by GNI per capita developed by the WB, they rank 16<sup>th</sup>, 41<sup>st</sup> and 18<sup>th</sup>, respectively. Table 2.6 highlights the three top donor countries related to each key recipient resulting from the analysis, as well as showing the aggregate amount of gross disbursements implemented by each top donor to the analysed recipients from 2002 to 2017 and that by all donors. In Table 2.6, countries are listed according to the aggregate level of gross disbursements received from 2002 to 2017. Later on, a more in-depth analysis will be provided, by taking into consideration factors such as food aid provided over population, food security and poverty.

Table 2.6. Aggregate development food aid flows provided to top recipients by donors expressed in gross disbursements (million, US dollars), 2002-2017

RECIPIENTS	DONORS	AGGREGATE FOOD AID PROVIDED (MILLION, USD)	% OF FOOD AID PROVIDED OVER POPULATION
ETHIOPIA	USA	1,012.84	35.57
	UK	457.72	16.07
	EU institutions	447.45	15.71
	OTHER	929.82	32.65
	<b>TOTAL</b>	<b>2,847.83</b>	<b>100.00</b>
BANGLADESH	USA	641.26	56.54
	EU institutions	232.38	20.49
	AUSTRALIA	132.25	11.66
	OTHER	128.36	11.32
	<b>TOTAL</b>	<b>1,134.25</b>	<b>100.00</b>
AFGHANISTAN	USA	391.37	49.40
	JAPAN	106.44	13.44
	EU institutions	101.25	12.78
	OTHER	193.17	24.38
	<b>TOTAL</b>	<b>792.23</b>	<b>100.00</b>

Source: own elaboration based on data from OECD.Stat (2019)

In order to better understand the food aid phenomenon, it is essential to investigate more about the donors of key recipients by aggregate gross disbursements provided and the reason why donors like the United States and the European Union have chosen such recipients for food aid flows. Accordingly, political relations between countries will be discussed in order to establish whether food aid provision is relevantly driven by political and economic benefits or not.

### *Ethiopia*

By starting from the country receiving the most significant level of food aid, Ethiopia gets assistance mostly from the United States, the United Kingdom and the EU. Concerning the United States, Ethiopia represents one of the countries receiving the largest share of US assistance. The Ethiopian-US diplomatic ties are mainly based on four pillars: promoting human rights and democracy, protecting US citizens, encouraging economic

development and growth and fostering peace and security (US Department of State, 2018). In 2017, US exports to Ethiopia amounted to \$857.4 million and they included mostly aircraft components, machinery and wheat. On the other hand, Ethiopia's exports to the US consisted mainly of coffee, textiles and oil seeds and reached a \$292.4 million value in the same year (US Department of State, 2018). Furthermore, Ethiopia was considered as a key partner by the US since it has been an important ally in the global war on terrorism (Jeffrey, 2019). However, Ethiopian-US relations seem to have shifted from counterterrorism towards economic and political interests in the last years (Jeffrey, 2018). For example, China, considered as a US "rival", is showing an increasing interest towards Ethiopia and the Horn of Africa from a trade and investment perspective.

The UK represents Ethiopia's another important partner and diplomatic ties between the two countries stretch back to more than one century ago. During the 20<sup>th</sup> century, for example, the UK played a vital role in helping Ethiopia fighting against fascism and earning the latter's independence (Embassy of Ethiopia, 2018). Their political relations were established at different levels (e.g. regional and bilateral level). For instance, significant efforts have been implemented by both countries to promote security and stability in the Horn of Africa, particularly in Somalia (UK Government, 2018). Furthermore, they have also established important bilateral relations aiming at improving development cooperation between them, that have been increasingly relevant especially during the last decade. UK development assistance to Ethiopia is mainly focused on alleviating poverty and improving health and education systems (according to the Embassy of Ethiopia, about 80% of development initiatives are addressed to these sectors). Both countries supported and are supporting significant programs promoted at the international level like the Millennium Development Goals and Sustainable Development Goals, in addition to taking part of international meetings dealing with counterterrorism and climate change. Also from the economic point of view, Ethiopia and the United Kingdom are important partners, as a matter of fact investment between the two countries is relevantly increasing. UK companies are investing especially in food, renewable energy and mining sectors. Moreover, Ethiopia represents a significant market for the UK to export chemicals, machinery and transport equipment (UK Government, 2015).

Ethiopia and the EU have built a strong relationship over almost fifty years during which many bilateral agreements regarding, for example, democracy enforcement, economic growth, migration and peace have been established. As a result, Ethiopia is considered as one of the most relevant European Union's partners in Africa. In addition, a joint declaration on the strategic engagement between the two parties was signed in 2016, by pledging them to fight against terrorism, promote human rights and encourage economic development and investment (European Commission, 2019). In addition, the EU committed to invest in Ethiopia, during the 2014-2020 period, over €1.5 billion in development and humanitarian programmes. Ethiopia is also one of the main fund recipients of the EU Emergency Trust Fund for Africa, mainly addressed to migration issues, by receiving €260 million for the 2015-2018 period (European External Action Service, 2019). By focusing on investment and economic relations, the EU represents the largest market for Ethiopia's exports (which consists mostly of agricultural products), accounting for 20% of total exports. 15% of Ethiopia's total imports come from the European Union and include primarily machinery and chemicals (European External Action Service, 2019). Foreign direct investments from the EU, also, are quite critical and increasing, for instance they totalled €600 million in 2016 (they amounted to €200 million in 2015) and they were mostly destined to the manufacturing sector, followed then by the agricultural one (European Commission, 2019).

### *Bangladesh*

Bangladesh constitutes the second most important food aid recipient in terms of gross disbursements. As previously discussed, its assistance is mainly provided by the United States, the European Union and Australia. Bangladesh and the US established tight trade relations between each other in the last decades, as a matter of fact the United States represents the most important export market for Bangladesh's goods (in particular, textiles and clothing). These exported goods reached a \$5.7 billion value in 2017 (US Department of State, 2019c). Bangladesh, instead, significantly imports from the US machinery and agricultural products (\$1.4 billion worth). Moreover, the US constitutes the most relevant provider of foreign direct investment in Bangladesh. For example, Chevron represents the main foreign investor and contributes to the production of over

50% of Bangladesh's natural gas (US Department of State, 2019c). As well as economic partnerships, the US and Bangladesh developed also strategic military collaborations, for example the former substantially committed to ensure peace and to implement counterterrorism strategies in Bangladesh. US assistance provision to Bangladesh aims mainly at improving food security, alleviating poverty, promoting education, as well as reducing violence.

The EU and Bangladesh represent two important trade partners as well, as a matter of fact the EU market constitutes 12% of the latter's total trade and more than half of Bangladesh's total exports by revenue are destined to the EU (European External Action Service, 2019). In FY2016 and 2017, Bangladesh's exports to the EU accounted for about \$18 billion (Mirdha, 2017). Exports to the EU consisted mostly of apparel, textiles and frozen food while the EU exported mainly chemicals, transport equipment and machinery (Centre for Policy Dialogue, 2012; European External Action Service, 2019). EU-Bangladesh Strategy Paper (2007-2013) constituted a significant step in strengthening relations between the two countries and it was mainly concerned with human rights, education, economic growth and trade development (European Commission, 2019a). Its mission was later included in the EU-Bangladesh cooperation strategy (2014-2020). In addition, the European Union decided to make Bangladesh part of the Everything but Arms (EBA) program, that is an initiative promoted by the EU aiming at facilitating trading relations with developing countries, for example, by avoiding the application of trade restrictions (European Commission, 2019a).

Another Bangladesh's major food aid donor is represented by Australia. The former established significant trade relations with Australia and in 2016-2017, for example, the value of Australia-Bangladesh trade reached \$2 billion (according to the Australian Department of Foreign Affairs and Trade, nearly 50% of it was generated from Bangladesh's exports to Australia). Australia imports from Bangladesh essentially apparel and textile whereas it exports fertilisers, cotton and vegetables (Department of Foreign Affairs and Trade, 2019). Like the EU, Bangladesh's exports to Australia are subject to preferential treatment (no duties and quotas are applied). Besides, Bangladesh provides Australian companies, specialised in fields like telecommunications, mining and energy, with significant business and investment opportunities (Bangladesh High Commission, 2019). For example, Santos (an important Australian oil and gas company)

is one of the most important investors in such industry in Bangladesh. This friendly relationship between Australia and Bangladesh has not developed recently but it dates back to the '70s when Australia was one of the first countries to recognise the independence of Bangladesh. The former has always constituted a significant provider of official development assistance to Bangladesh and in 2017-2018, it disbursed \$89.9 million on aid, aiming at encouraging inclusion, economic growth and education (Department of Foreign Affairs and Trade, 2019).

### *Afghanistan*

From the previous recipient analysis, Afghanistan emerged as a key recipient of developmental food aid as well. Food assistance is provided to Afghanistan mainly by the United States, followed then by the EU institutions and Japan. Relations between the US and Afghanistan date back to the first decades of the 20<sup>th</sup> century, by becoming more and more significant over the years. Especially from the 2001 terrorist attacks, their relationship intensified and the US started to be a relevant player in the Afghan political scene (Congressional Research Service, 2019a). As well as supporting the administration of President Karzai and fighting against Taliban forces, US government critically invested in Afghan security, education and infrastructure systems (US Department of State, 2018g). In 2005, the two parties signed a strategic partnership binding them to a long-term relationship and a similar agreement was then signed seven years later under the Obama administration (US Department of State, 2018g). In 2012, Afghanistan was also nominated by the US as a major non-NATO ally (US Department of State, 2018g). During the last years, the US continued to maintain its military presence in Afghanistan due to ongoing conflicts and social unrest which severely harmed the country.

As previously mentioned, Japan is another important food aid donor for Afghanistan. Food aid flows to Afghanistan consolidated especially from 2006 to 2010 with a critical peak in 2009 and 2010 (OECD.Stat, 2019). However, political and economic ties between Afghanistan and Japan strengthened particularly from 2002, when the latter, at the Tokyo Conference, committed to provide Afghanistan with aid, in order to reconstruct the country (Ministry of Foreign Affairs, 2002). This act was encouraged considerably by the fact that political instability was hindering trade routes in Afghanistan and that Japan joined the US on the fight against terrorism (Shaikh, 2018). In return for the assistance

received by Japan, Afghan President Karzai declared in 2010 that Japan would be prioritised regarding mineral resource exploration in Afghanistan (NBC, 2010). Nowadays, they keep on nurturing their economic ties due to mutual interests in the Southern- and Central-Asian areas (Shaikh, 2018).

Concerning the European Union, it implemented the EU Strategy for Afghanistan in 2017 with the objective to enhance the country from the economic and institutional perspective (European External Action Service, 2019). Their partnership aims at being beneficial in several fields, including education, technology, rural development and security (European Commission, 2019). Economic relations are also to be taken into consideration, as a matter of fact Afghanistan, as a low-income country, can enjoy a preferential trade agreement with the EU called EBA. EU commitments toward Afghanistan were renewed at the Geneva Conference in 2018, by pledging \$535 million to support elections and to improve public sector and migration reforms (Qazi, 2018).

The above described recipients are undoubtedly countries that are in need for external aid, however, as it will be discussed in the next chapter, other countries are facing critical (sometimes even worse) conditions as well. After having analysed political and economic relations tying recipient countries to their corresponding key donors, it is now important to discuss whether these relevant food aid flows are supported by “friendlier” donor-recipient relationships and by their relative benefits.

Ethiopia, as previously analysed, constitutes the principal food aid recipient. Besides being a country severely hindered by high levels of poverty and food insecurity, it represents, however, the fastest growing economy and one of the most populous countries in Africa according to the World Bank (2019). For this reason, Ethiopia has much potential and, accordingly, it is playing a more and more strategic role in the global arena. This point emerged especially when discussing about relations between the US and Ethiopia, by stating that the latter is considerably attracting superpowers’ attention (e.g. China and Russia) and this may pose a significant threat to the United States. As well as the US, the EU and the UK established tight relationships with Ethiopia, particularly from an economic point of view, since it represents an important market for their exports. From these facts, some doubts may arise concerning the rationale behind the substantial food

aid flows to Ethiopia, for instance a share of that may be attributed to the protection of donors' economic and geo-political interests.

Like Ethiopia, Bangladesh constitutes an economy which is rapidly growing during the last years, even though its food security and poverty levels remain quite alarming nowadays. Also in this case, several mutual interests are involved in the relations between Bangladesh and its main food aid donors, ranging from security to investment opportunities (e.g. some US and Australian companies like Chevron and Santos conduct substantial business in Bangladesh). In addition, all its top donors are characterised by significant import/export flows with Bangladesh, facilitated also by advantageous trade agreements offered to the latter. As the previous assertions may suggest, food aid provision to Bangladesh may be partly "biased", that is not driven essentially by effective need, but also by interests of different nature, linked more to the economic and military sphere.

The third major recipient of development food aid by aggregate level of gross disbursements, that is Afghanistan, represents an extremely poor and food insecure country whose economic development continues to be severely constrained by harsh conflicts and social unrest. From the analysis of political relations between Afghanistan and its major food aid donors, the United States and Japan seem to have more diversified interests intertwined in their partnership with Afghanistan. They are mainly associated with the management of natural resources (particularly in the case of Japan) and the fight against terrorism. Especially the United States showed particular attention to this country and built a significant relationship with it, by increasing more and more its presence from the military and political point of view.

As well as analysing top developmental food aid recipients by aggregate gross disbursements received, it may be interesting also to identify significant food aid flows at the single donor level. For instance, some donor countries provide considerable food aid to recipients which do not result among the top ones when taking into account the aggregate amount of assistance received.

### *US-Haiti*

The US and Haiti share a long and tumultuous history and severe tensions between them still occur today. In addition to military presence, the US is a critical participant of the Haitian political scene (Chavez, 2018). The United States, moreover, is significantly involved in providing assistance to Haiti in order to alleviate poverty and reduce unemployment (Charles and Ordonez, 2019). Great efforts are also addressed to improve food security and healthcare, in addition to foster democracy and economic and trade development (US Department of State, 2019b). For example, it disbursed \$450.15 million to provide Haiti with developmental food aid from 2002 to 2017 (OECD.Stat, 2019). US assistance provision magnified especially after the 2010 earthquake and cholera outbreak, for instance the US has disbursed until now more than \$5.10 billion to reconstruct the country (US Department of State, 2019b). Nevertheless, the conditions faced by Haiti continued to be quite dramatic over the years due to extreme climate events and unfavourable economic factors (e.g. local currency depreciation and increase in food prices). Illegal migration constitutes an important driver for food aid flows to Haiti since many Haitians are leaving the country illegally to reach the US because of the difficult living conditions in their homeland. Accordingly, improving them through aid provision may be the only solution to put this phenomenon to an end. Although the current situation is not favourable, the United States is also encouraging investment in Haiti, as a matter of fact many US-based companies belonging, for example, to the airline, agribusiness and commercial bank sector, operate in Haiti (US Department of State, 2019b). Moreover, the United States significantly supports the clothing industry by importing apparel from Haiti, accounting for 90% of Haiti's total exports, and by making it eligible for US duty-free (Chavez, 2018).

### *US-Mozambique*

Diplomatic relations between the US and Mozambique stretch back to the '70s when President Ford recognised the latter's independence. US aid provision began essentially after the 2000 severe floods and aimed at improving living conditions by targeting different fields, including education, food security, economic growth, health and governance (US Embassy in Mozambique, 2019). Regarding food aid, the US provided to Mozambique \$394.80 million from 2002 to 2017 (OECD.Stat, 2019). Furthermore, the

United States provided also significant foreign direct investment to Mozambique and three US companies, that is Exxon Mobil, Mozambique Leaf Tobacco Limitada and Anadarko Petroleum, substantially invested in the latter (US Department of State, 2018).

#### *Canada-Ethiopia*

Canada and Ethiopia established friendly political and economic relations, by sharing objectives like improving trade partnerships, fighting against violence and corruption and encouraging gender equality (The Embassy of Canada on Ethiopia, 2018). Ethiopia represents one of the Canada's most significant aid recipients, by receiving \$192.92 million in 2016-2017 period (The Embassy of Canada in Ethiopia, 2018). Canadian assistance mainly aims at promoting economic development and democracy, reducing unemployment and improving food security levels, as well as implementing better disaster management strategies (Government of Canada, 2019). For example, Canada disbursed \$274.03 million on developmental food aid in the 2002-2017 period (OECD.Stat, 2019). Canada and Ethiopia are also important trading partners, in particular the latter constitutes a significant market for the Canadian aerospace industry, in addition to that of precision instruments, chemicals and machinery. Ethiopia, instead, mostly exports to Canada leather, oilseeds, spices and coffee (Embassy of Ethiopia, 2016).

#### *EU-Sudan*

The relationship between the European Union and Sudan is related to four main aspects: improvement of economic development, peace and security promotion, handling of the migration issue and protection of human rights (European External Action Service, 2016). Migration represents a critical phenomenon in Sudan nowadays, for instance Sudan constitutes a crossroad of migration flows in Africa, which link the eastern region to the northern one or the EU (European Commission, 2019g). Given the Sudan's vital position for the stability in the Horn of Africa, the EU is playing a considerably active role in Sudan on dealing with migration and the aforementioned objectives (EU Council, 2018). For example, it has provided since 2010 €196 million to people living in areas severely hit by conflicts and then added other €100 million through a Special Measure in 2016 (European Commission, 2019g). Besides, the EU disbursed \$186.69 million for developmental food aid in Sudan during the 2002-2017 period (OECD.Stat, 2019).

As discussed earlier in this section, the above-analysed recipients are countries characterised by dramatic poverty and food security levels in this case as well. In addition to improve critical local livelihoods, geopolitical and economic interests are significantly involved in the relationships established between donors and recipients. For example, the migration problem plays a central role in the US-Haiti and EU-Sudan relations and it is in the donors' interests to manage it efficiently and keep it under control. Trade partnerships are also of considerable importance when discussing the previous donor-recipient relationships, especially those related to natural resources in Mozambique or to garments in Haiti. Furthermore, security and peace promotion represent other relevant drivers for diplomatic ties, as a matter of fact Sudan and Ethiopia constitute two crucial countries to achieve stability both at the regional and global level.

As well as analysing recipients by aggregate level of gross disbursements, it is also important to focus on development food aid provided per capita, in order to conduct a better comparison across countries. Table 2.7 provides information similar to Table 2.6, with the exception of the last two columns illustrating the average food aid provided per year (both the median and the mean are applied, it depends on the presence of outliers) and the average value of the ratios between development food aid gross disbursements and population registered each year during the selected period. The median has been taken into account as well, because it is a useful tool to minimise the effect of outliers on the time series.

Table 2.7. Aggregate development food aid received (million, US dollars) and food aid provision over total population (US dollars) related to selected recipients, 2002-2017

<b>RECIPIENTS</b>	<b>DONORS</b>	<b>AGGREGATE FOOD AID PROVIDED (MILLION, USD)</b>	<b>AV. FOOD AID PROVIDED YEARLY (MILLION, USD)</b>	<b>FOOD AID OVER POPULATION PER YEAR (USD)</b>
<b>ETHIOPIA</b>	USA	1,012.84	63.30	0.72
	UK	457.72	28.61	0.33
	EU institutions	447.45	27.97	0.32
	OTHER	929.82	58.11	0.67
	<b>TOTAL</b>	<b>2,847.83</b>	<b>44.50</b>	<b>0.51</b>

<b>BANGLADESH</b>	USA	641.26	40.08	0.27
	EU institutions	232.38	14.52	0.10
	AUSTRALIA	132.25	8.27	0.06
	OTHER	128.36	8.02	0.05
	<b>TOTAL</b>	<b>1,134.25</b>	<b>17.72</b>	<b>0.12</b>
<b>AFGHANISTAN</b>	USA	391.37	27.96	0.97
	JAPAN	106.44	6.65	0.23
	EU institutions	101.25	6.33	0.22
	OTHER	193.17	12.07	0.42
	<b>TOTAL</b>	<b>792.23</b>	<b>12.38</b>	<b>0.46</b>

*Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)*

In the previous table, it can be easily noticed that the values of developmental food aid per capita are quite low, especially in Bangladesh where it corresponds to \$0.12. In Ethiopia and Afghanistan, its values are substantially higher, for instance it reaches \$0.51 and \$0.46, respectively. An interesting fact arising from these results is that relevant levels of gross disbursements do not directly imply high ratios between received development food aid and population and the case of Bangladesh witnesses that.

### **2.3.1. Recent example: Venezuela**

As it has been investigated in the past section, food aid provision towards recipient countries is often part of a wider political chess game between countries. Significant incentives for food aid flows may be represented by economic and trade relations, international security and geo-political interests, in addition to migration flow management. The most recent episode of food aid political instrumentalization started in Venezuela in February of the current year. Like in many donor-recipient relationships analysed, several countries are interested and particularly involved in this matter since they are willing to protect their related complex net of interests. Another relevant point that this example aims at highlighting is that political forces may have a critical impact

on food aid targeting. So, reaching the population with the greatest need is not a consequence of food aid provision that happens by default, some obstacles may indeed come along. Before discussing in depth the Venezuelan food aid issue, it is important first to provide an oversight about the recent socio-political and economic history of the country.

### Country profile

Venezuela is a country located in the northern area of South America populated by around 32 million inhabitants and it constitutes a federal presidential constitutional republic. Moreover, it offers one of the largest oil reserves in the world, as well as being very rich in minerals and metals such as gold, iron and bauxite. Nevertheless, Venezuelans are living in poverty conditions where access to basic food and medicines lack. As it will be discussed shortly, this is due to decades of instability and corruption which significantly crippled the country.

Even though Venezuela is experiencing a dramatic emergency situation regarding different aspects ranging from politics to poverty and food security nowadays, life for Venezuelans was not much easier before. Venezuela had been under the Chávez regime for a decade (until 2013), who left his successor Maduro an extremely weak country especially from the economic point of view. During his regime, Chávez significantly made Venezuela's economy depend on oil revenues which permitted the country to boost trade flows at subsidised prices. In addition, he mismanaged public finances by quadrupling foreign debt and nationalised a huge amount of companies (Taladrid, 2019). During the Maduro regime, the economic situation in Venezuela was then significantly worsened by a drastic fall in oil prices which severely hindered the implementation of long-term development initiatives by the government, like food subsidies. As a result, he started to print a lot of money by leading the country into a spiral of hyperinflation. Moreover, he implemented stricter pricing rules, which harmed domestic production, and hampered local businesses by limiting imports (Taladrid, 2019). This economic collapse generated more and more alarming levels of poverty and hunger in Venezuela, by causing a critical lack of medical and food supplies and by forcing over three million people to leave the country in recent years. During Maduro's political campaign for the 2017

presidential elections, he relevantly politicised food assistance to obtain population's support but, given the extremely high levels of abstention, he had to fix election outcomes in order to be re-elected. This, undoubtedly, fuelled population discontent and protests which led to a climate of tensions and instability.

### Food aid crisis

The trigger factor of this alarming crisis was represented by Guaidò's rise to power in January 2019, by significantly threatening Maduro's government. After this event, the country entered a phase of severe political crisis which generated social unrest and violence episodes, for instance Venezuelan military forces continued to support the former President. Meanwhile, Guaidò, which committed to alleviate the domestic food emergency, requested to the international community food-aid-related intervention. The first positive response came from the United States, which declared its support to Guaidò, and immediately sent a considerable amount of assistance totalling about \$20 million to a Colombian town, named Cùcuta, located close to the border with Venezuela (Taladrid, 2019; Wendelbo, 2019). Significant food aid was then also provided by Canada and Brazil. However, food aid was blocked at the border by Maduro-friendly military body since he stated that food aid represented an instrument for foreign parties to influence and take over the country, by undermining its democracy. As of mid-February, Venezuela received about \$100 million in food and medical assistance but only 85,000 rations were distributed among Venezuelans (Krygier and O'Grady, 2019). In order to avoid being associated with the image of food aid blocking, Maduro then affirmed that Cuba and China, that is Venezuela's allies, would provide 933 tons of aid (Krygier and O'Grady, 2019). As a response to this act, the US decided to impose sanctions on Petroleòs de Venezuela, that is a state-owned oil company, and on former state officials by freezing their assets in the US (Rampton and Acosta, 2019; Taladrid, 2019). It encouraged also its allies belonging to the Lima Group (i.e. partnership among countries aiming at managing Venezuela's crisis), like Argentina and Canada, to move toward the same direction. Moreover, the US demanded to the UN Security Council fair and democratic elections in Venezuela with the presence of international observers, but Russia, which has significant investments in the country, did not support the initiative.

Meanwhile, Venezuelan population has been living in worst and worst conditions with dramatic levels of food insecurity, which were already alarming before this recent crisis. Many Venezuelans fled from the country and attempted to cross the border to reach Cùcuta where the provided aid was stored. Several episodes of violence and casualties occurred at the borders with neighbouring countries like Colombia and Brazil and protests were held in the streets of Caracas (Lyons et al., 2019). The United Nations and other international organisations like the International Red Cross, therefore, expressed their concern about the situation and invited all the involved parties to untie food aid from political influence (Hu and Britton, 2019; Taladrid, 2019). As of May 2019, President Maduro still has to resign and acting self-declared President Guaidò requested US military cooperation to oust the former by all means (CNBC, 2019). Relations between the US and Latin American allies are, however, deteriorating since the US is pressing the latter to limit drug trafficking and migration flows without giving them much in return. Meanwhile, superpowers like China and Russia are taking advantage of this situation to further penetrate the Venezuelan market (Horton, 2019).

### Venezuela-US relations

As previously discussed, the United States is playing a central role in this situation by providing considerable levels of assistance and encouraging allies to create a common bloc against former President Maduro. However, this active participation in the matter may lead people to think further interests are hidden below the food aid surface. Besides, it may be interesting to investigate Venezuela-US relationship in order to better understand why Venezuela's crisis evolved in this way. Relations between the US and Venezuela were quite good in the past, for instance the latter constituted a crucial US oil exporter, but they have been extremely tense over the last decades, especially since Chávez rose to power in 1999, and the US support to Guaidò in January did not make things any easier (Congressional Research Service, 2019c; Wendelbo, 2019). During Maduro's presidency, the US imposed sanctions to more than forty Venezuelan people, comprising the President himself, since they represented a threat to human rights and democracy, in addition to suspending any kind of relationship between US financial sector and the Venezuelan government (US Department of State, 2018a).

As previously mentioned, Maduro showed much scepticism towards the United States which brought him to reject US assistance provision to Venezuela, by defining it as a Trojan horse aiming at undermining democracy. This resentment is associated with past events though, for example the US significantly exerted influence over politics in Cuba, one of the most important Venezuela's allies, in 2014 by running a Cuban social network. Another reason is represented by US food aid policy itself, as a matter of fact it is well known the fact that food aid is often implemented as an instrument of foreign policy aiming at advancing US interests at the international level (Wendelbo, 2019).

### Venezuela-China relations

In addition to the US, China plays a critical role in the Venezuela's crisis but, as discussed before, they took opposite sides. A brief insight about Venezuela-China bilateral relations will be now provided, in order to better understand China's position on the matter.

Diplomatic ties between the two countries first date back to 1974 but they started to tighten significantly in the 2000s with the political rise of Hugo Chávez (Ward, 2019). Both parties established mutually beneficial agreements in which Venezuela sought to diversify its trade flows towards Eastern countries while China was strongly interested in Venezuela's natural resources (oil in particular). Today, China and Venezuela still have a tight relationship although it has been substantially challenged by the latter's continuous tensions in the last years.

In the actual Venezuelan crisis, China (together with Russia and Cuba) is supporting the Maduro regime and, at the same time, contrasting the US presence in the country. The former has several reasons to keep relations with Venezuela tight and they are mostly linked to the security, economic and trade dimension. For instance, China significantly invested (about \$60 billion value) in Venezuela in recent times as part of a Chinese wider strategy, i.e. the Belt and Road Initiative, aiming at increasing its influence on the Caribbean and Latin America region. Venezuela constitutes also a relevant export market for China regarding military hardware, aircraft and weapons, as well as a crucial partner in relation to energy supply (Horton, 2019; Lu and Morales, 2019). Supporting the new government, indeed, may pose a serious threat for China to all the economic agreements

established with Maduro (Ward, 2019). Furthermore, China represents a relevant lender for Venezuela, for instance the former lent over \$55 billion to Venezuela during the 2007-2016 period (Ferchen, 2019). However, the latter still owes to China about \$22 billion in loans (Ward, 2019).

Venezuela represents one of the most recent examples reflecting the instrumentalization and politicisation of food aid enacted by donor countries. Its provision is usually intertwined with multiple interests diverging from the mere development purpose and being more and more focused on the economic and security sphere. In the specific case of Venezuela, investments, natural resources and migration are the main factors encouraging some countries like the US and China to get involved into this situation. As witnessed in some previously analysed bilateral relationships as well, the recipient country constitutes a sort of battlefield of conflicting interests among enemy donor economies in which food aid is used as a means to take over. Generally, the main opposing parties are represented by the United States, on one side, and China and Russia, on the other one. Another significant point underlined by this example is that people in need do not always receive the aid provided to them since influential agents' interests may pose a serious threat to effective food aid targeting. Accordingly, this demonstrates that political and economic interests are often prioritised over population's actual needs.

## **Chapter 3. Poverty and food security**

### **3.1. Poverty definition and measurement**

Poverty entails a multi-disciplinary approach in order to be fully understood and its definition, thus, can vary (OECD, 2012). In general terms, it can refer to the state in which goods and services necessary to meet basic needs, as well as the access to them, lack (United Nations, 2017). As this may suggest, poverty and food insecurity are significantly interlinked phenomena, for instance the latter is considered as a form of extreme poverty (The Hunger Project, 2014).

According to the World Bank (2000), poverty constitutes a “deprivation in well-being”. Well-being, accordingly, needs to be defined in order to completely understand the previous assertion and this can be done by analysing two different perspectives. Firstly, well-being can be viewed as the control over resources and poverty measurement as related to the access to goods necessary to satisfy essential needs (World Bank, 2005). The income of individuals or households is then compared with an established minimum level and in the case in which it is below the threshold, they are deemed poor. As it will be discussed later, this represents the most commonly used approach when analysing poverty. Another approach consists of linking well-being to the ability to access a certain type of goods and services such as education, food and health care (OECD, 2018c). Poverty is also associated with the lack of key capabilities to integrate in society, that is when people are not able to have a sufficient level of education, income, self-esteem or exercise their rights (Sen, 1987). This underlines that poverty is characterised by a strong multidimensional factor.

Moreover, poverty is significantly linked to other concepts like inequality and vulnerability but it presents several differences from them. As a matter of fact, the former refers to the income distribution in a given population and the latter, instead, to the chance to become poor, even though the subject is not poor in the present (World Bank, 2005). Critical phenomena such as economic crises, conflicts and droughts are also significantly related to poverty by leading to substantial impacts on local communities since poverty

can affect the behaviour of population regarding, for example, consumption, production and investment (Gertz and Kharas, 2018).

### Monetary and non-monetary poverty

Distinction has to be made also between monetary and non-monetary poverty indicators. Monetary measures include consumption and income and both of them can be computed thanks to household surveys (United Nations, 2017). However, these can face several challenges in cases of conflicts and unwillingness by a specific country to disclose data or conduct the surveys (OECD, 2012). In such situations, GDP per capita is usually taken into consideration. Furthermore, monetary indicators are measured by taking into account specific income-based and expenditure-based thresholds both at the national and international level, depending on the analysis objective. In addition, these can be classified into absolute and relative measures. Concerning country-level comparisons, poverty can be analysed according to the classification of countries by income level provided by the World Bank (WB), which divides them into low income, lower and upper middle income and high income based on Gross National Income (GNI) per capita, i.e. total domestic and foreign income earned by residents of an economy (Todaro & Smith, 2011). Qualitative indicators, instead, consist of the access to basic services comprising education, sanitation and health (Coudouel et al., 2002; OECD, 2012).

### Poverty lines

In order to identify the share of population living in extreme poverty (i.e. poverty headcount ratio), poverty lines, that is thresholds reflecting the cost of purchasing a basket of basic resources necessary to satisfy essential needs, are commonly used (United Nations, 2017). Today, the internationally recognised poverty line is fixed at \$1.90 a day using 2011 prices (World Bank, 2018). Poverty lines can be divided into: absolute and relative ones. Absolute poverty lines represent the most common tool to measure poverty, especially in low- and middle-income countries, along the time and space dimension and permit also reliable comparisons. They refer to the monetary value of a basket of goods that are necessary to meet basic needs (United Nations, 2017). However, the goods

included in this basket cannot remain unaltered across different places and over time, as a matter of fact goods that were essential to satisfy basic needs in the past, are not considered as such nowadays due to, for example, an improved quality of life and technological progress. Consequently, poverty lines need to be updated over the years to adapt to changing conditions but, at the same time, they should be able to capture long-term changes in poverty.

Relative poverty lines are mainly applied, instead, to high income countries where the achievement of a minimum standard of living represents a less critical aspect than in poorer countries and a greater focus on factors like inclusion is set. Moreover, they constitute an explicit expression of income distribution, that is a constant fraction of an income standard (United Nations, 2017). They are computed by taking into account the median (or mean) income or expenditure of a specific society. The EU considers poor people those who have an income per capita below 50% of the EU median (United Nations, 2017). According to Townsend (1979), relative poverty refers to the population that is not able to obtain the necessary resources to meet the living standards and diet type promoted by the society. Relative poverty lines may appear quite easy to apply, however, they may present several challenges like a lack of transparency. For example, the level of poverty remains unchanged if the income of all the households doubles. Since both types of poverty lines are characterised by significant advantages and disadvantages, several countries apply both indicators in order to provide a complete and meaningful poverty analysis.

As previously discussed, the reliability of poverty measures plays a fundamental role in alleviating poverty, since international and national policies may significantly depend on these data. In addition to the improvement of intervention targeting, poverty measurement is also essential to make the poor more visible and, therefore, to make them included in the political agenda. Among these policies, food aid can represent an important means to fight poverty (Burnside and Dollar, 2004; Kaya et.al., 2012). However, as witnessed in the literature, this assertion has been debated a lot over the years. According to some studies, food aid has a positive impact on poverty just when other political and economic elements are taken into consideration (Burnside and Dollar, 2004; Egler, 2015).

In order to measure poverty consistently and, then, target policies, it is fundamental to analyse the several factors generating it. They are not homogeneous across countries, therefore a country-specific analysis needs to be provided (World Bank, 2005). Drivers for poverty can be studied by focusing on three different levels: regional or national, community and household. At the regional level, poverty is significantly affected by geography and climate phenomena, as a matter of fact remoteness, bad climate conditions and absence of resources increase the poverty level. Further drivers can be represented also by local governance, policies and stability from a political and socio-economic point of view. Regarding the community level, infrastructure and access to public services like health centres and schools, play an essential role in impacting poverty. Social networks and social capital, that is the socio-political environment contributing to social structures and the development of norms, are significant drivers as well. At the household level, instead, demographic, economic and social aspects are taken into consideration, including household structure and size, employment, property, education and health. For example, the more the household members are educated, the more opportunities to increase income (and reduce poverty) exist.

Extreme poverty has been significantly reduced in the last decades and, as it will be analysed later, has constituted a top priority on the global political agenda (OECD, 2018b). For instance, the main objective set by the first Millennium Development Goal (MDG), i.e. halving global extreme poverty between 1990 and 2015, was successfully achieved and now the eradication of extreme poverty by 2030 represents the main aim promoted by the first Sustainable Development Goal (SDG). Although this positive result, poverty remains an alarming phenomenon to be eradicated nowadays especially in the Sub-Saharan region, for instance more than 50% of people suffering from extreme poverty lived in this area in 2015 and this percentage is expected to increase (World Bank, 2019). According to the World Bank, the objective set by SDGs can be reached if the rate of extreme poverty reduction shows the same trend as that registered during the period 1990-2015, that is 1% each year (OECD, 2018b). In 2015, people living in extreme poverty accounted for 10% of world population (i.e. about 736 million people), accordingly extreme poverty may be eliminated by 2025 (World Bank, 2019). However, growth forecasts are not so optimistic about this fact. Due to continuous changes in the

global scenario, the evolution of policies aiming at poverty eradication is of critical importance and therefore, the path followed to reach the first MDG has to be deviated. As a matter of fact, poverty significantly fell because some critical countries such as Vietnam, China and India faced an important economic growth during the MDG period, regardless the fact that poverty conditions in several developing countries remained worrying (Gertz and Kharas, 2018). In order to achieve the first SDG, it is now essential, instead, to pay more attention to the poorest countries striving the most to alleviate poverty (OECD, 2018c).

### Millennium Development Goals

Since decades, poverty has always been a top priority to be alleviated by individual countries, multilateral agencies and civil society. A special turn point is represented by the Millennium Development Goals (MDGs) which were a set of UN-developed goals aiming at fostering international development and established after the Millennium Declaration in 2000 (United Nations, 2017). The first MDG was dedicated to fight hunger and poverty and entailed two targets: halve the share of population living on less than \$1 dollar per day during the time interval 1990-2015 (measured in PPP terms) and halve the share of population suffering from hunger during the aforementioned period (OECD, 2012). The United Nations established several indicators, such as the share of population with less than \$1 per day and the share of population below minimum dietary energy intake, in order to monitor the MDG application at the global level. However, the provision of MDG statistics encountered several difficulties, particularly on gathering the required information and on analysing the related data (United Nations, 2017). It is important to underline that the previous global-level indicators were selected according to the specific conditions characterising developing countries and some countries, as a result of changing circumstances, implemented additional indicators to reflect better the actual situation. For example, people living in extreme poverty were mostly associated with rural areas thirty years ago, whereas nowadays one fourth of this group live in urban areas (United Nations, 2017).

The \$1-a-day poverty line was strongly criticised because it failed to take into account the spending for basic needs other than that destined to food- and essential non-food-

related needs (e.g. clothing and housing). For instance, a new poverty line was established at \$1.90 a day (expressed in PPP) but it continues to be quite low. According to the World Bank, additional poverty lines should be added in middle-income countries in order to face this issue. Further problems related to absolute poverty lines are the significant impacts that several factors, such as the exchange rate selected for the conversion of income from national currency to US dollars and the PPP base year, have on them. Some agents, like the OECD and the EU, thus take into consideration relative poverty lines rather than absolute thresholds to provide comparisons at the international level (Bradshaw and Mayhew, 2011).

### Sustainable Development Goals

By following a similar path to that created by Millennium Development Goals, Sustainable Development Goals (SDGs) were developed in 2015 by the UN to contribute to the implementation of the 2030 Agenda for Sustainable Development (i.e. an action plan aiming at promoting development strategies). However, the SDG scope is broader than the MDG one, as a matter of fact the former is related, for example, to inequalities, climate change and natural resources as well as hunger, poverty and gender and health issues (United Nations, 2017). Furthermore, MDGs were significantly encouraged by donor countries while SDGs were established by all Member States by applying a more participatory approach. These two initiatives present differences also regarding their addressees, for instance MDGs are principally destined to poorest countries whereas SDGs refer to all the world population since no one should be excluded.

Like MDGs, SDGs are characterised by an inefficient monitoring process and a complex poverty measurement. Although the presence of an internationally recognised list of indicators (United Nations Statistical Commission, 2016), the lack of methodological guidance to obtain the required data and the absence of regular production of these data by statistical offices constitute a critical obstacle. In order to provide a reliable poverty analysis, the harmonisation of poverty indicators and their international comparability are fundamental. As a matter of fact, individual countries are able to evaluate their progress in fighting poverty and assess the impact of implemented or forecasted government policies. Nevertheless, a certain level of flexibility is also necessary to provide useful

poverty measures since it would allow them to entail domestic characteristics and, accordingly, to be more context-specific (United Nations, 2017). In this way, poverty measurement should be more able to address local needs. In order to maintain this flexibility degree, poverty targets, both at the international and national level, should be applied.

### Poverty data

The World Bank classifies countries by GNI per capita using both the Atlas method (i.e. a special conversion method) and PPP terms. In this case, GNI per capita expressed in PPP will be taken into consideration since comparisons across countries will be provided. Moreover, it is converted into international dollars since their purchasing power over GNI corresponds to that of the US dollar in the United States (World Bank, 2019). The following table (Table 3.1) shows the 20 poorest countries in the world by GNI per capita (PPP) and it can be noticed that both Burundi and Central African Republic take the first position with a GNI per capita (PPP) equal to \$730. Democratic Republic of Congo, Niger and Liberia rank second, third and fourth, respectively. Moreover, it has to be underlined that 18 out of 20 countries are African ones and the two exceptions are represented by Haiti (15<sup>th</sup> position) and Afghanistan (18<sup>th</sup> position) with GNI per capita equal to \$1.830 and \$1.980, respectively. The countries in bold are those which will be analysed more in detail in this paragraph.

Table 3.1. Ranking of poorest country by GNI per capita (PPP, international dollar), 2017

Ranking	Countries	GNI per capita PPP (international \$)
<b>1</b>	<b>Central African Republic</b>	<b>730</b>
<b>1</b>	<b>Burundi</b>	<b>730</b>
<b>2</b>	<b>Congo, Dem. Rep.</b>	<b>870</b>
<b>3</b>	<b>Niger</b>	<b>990</b>
4	Liberia	1.160
5	Malawi	1.180
6	Mozambique	1.210
7	South Sudan	1.440
8	Sierra Leone	1.500
9	Madagascar	1.510
10	Gambia, The	1.660
11	Guinea-Bissau	1.700
12	Togo	1.720
13	Burkina Faso	1.800
14	Uganda	1.820
15	Haiti	1.830
16	Ethiopia	1.890
17	Chad	1.920
18	Afghanistan	1.980
19	Rwanda	1.990

Source: World Bank, 2019

After having provided the ranking developed by the WB, it is now important to investigate the amount of food aid received by the poorest countries, in particular developmental food aid. In the following table (Table 3.2), the aggregate developmental food aid registered during the period 2002-2017 is investigated and it is expressed in gross disbursement terms (million US dollars). Relative data are extracted from the OECD-CRS data system. In addition, as previously mentioned, countries are listed according to the WB's list of poorest countries (Table 3.1).

Table 3.2. Developmental food aid received in gross disbursements (million US dollars), 2002-2017

POOREST COUNTRIES' LIST (WB)	COUNTRIES	DEV. FOOD AID RECEIVED (MILLION USD)
1 <sup>st</sup>	CENTRAL AFRICAN REPUBLIC	101.09
1 <sup>st</sup>	BURUNDI	229.16
2 <sup>nd</sup>	CONGO, DEM. REP.	506.90
3 <sup>rd</sup>	NIGER	646.05

Source: own elaboration based on data from OECD.Stat (2019)

As Table 3.2 illustrates, food aid provision seems to decrease as poverty level increases. However, the opposite trend should be expected, for instance more food aid should be delivered to the neediest countries but further aspects, like the demographic ones, should be taken into account. Central African Republic and Burundi, indeed, have significantly lower populations than the Democratic Republic of Congo and Niger. As this assertion may justify, it can also be noticed that a quite wide gap is present between the first two poorest countries (i.e. Central African Republic and Burundi) and the remaining ones. It may be interesting now to add emergency food aid in order to verify whether the provision of total food aid follows the same path as developmental food aid. Table 3.3 shows that the provision of both types of food aid presents the same trend, that is negatively related to poverty level, except for Democratic Republic of Congo which “overcomes” Niger by receiving more aid.

Table 3.3. Total food aid received in gross disbursements (million US dollars), 2002-2017

<b>POOREST COUNTRIES' LIST (WB)</b>	<b>COUNTRIES</b>	<b>TOTAL FOOD AID RECEIVED (MILLION USD)</b>
1 <sup>st</sup>	CENTRAL AFRICAN REPUBLIC	425.38
1 <sup>st</sup>	BURUNDI	581.73
2 <sup>nd</sup>	CONGO, DEM. REP.	2,078.33
3 <sup>rd</sup>	NIGER	1,674.88

*Source: own elaboration based on data from OECD.Stat (2019)*

#### Poverty headcount ratio at 1.90\$ a day

As previously discussed in this section, a useful measure to identify poverty in a specific country and compare it at the international level is represented by poverty headcount ratio at 1.90\$ a day, that is the internationally recognised absolute poverty line. Since cross-country comparisons will be taken into account, poverty headcount ratio (2011 PPP) expressed as a percentage of total population is applied and data are extracted from the World Bank database.

Table 3.4 shows the countries registering the highest values of poverty headcount ratio at 1.90\$ a day. In all of them, more than 70% of population lives on less than 1.90\$ a day

and the most significant percentage can be found in Madagascar where it reaches 77.6%. The second place is taken, instead, by the Democratic Republic of Congo with a poverty headcount ratio at 1.90\$ a day corresponding to 76.6%. Furthermore, it is also important to point out that all these countries are in the African continent, in particular in the Sub-Saharan region.

Table 3.4. Highest levels of poverty headcount ratio at 1.90\$ (2011 PPP) (%) by country

COUNTRIES	POVERTY HEADCOUNT RATIO AT \$1.90 A DAY (2011 PPP) (%)
MADAGASCAR	77.60
CONGO, DEM. REP.	76.60
BURUNDI	71.80
MALAWI	70.30

Source: *World Development Indicators (World Bank), 2019*

By comparing the two poverty measures discussed in this section, it can be seen that some countries like the Democratic Republic of Congo and Burundi, are among those presenting the most critical poverty levels according to both measures. Other countries (e.g. Malawi and Central African Republic), even if they do not register the highest values for both the two analysed measures, are characterised anyway by critical poverty levels from both perspectives. For example, Malawi ranks fourth among the countries with the highest poverty headcount ratio at 1.90\$ a day and it takes the fifth place in the ranking of poorest countries by GNI per capita (PPP, international dollars). Central African Republic, instead, represents the poorest country according to GNI per capita and, at the same time, it ranks sixth by poverty headcount ratio at 1.90\$ a day.

Like in the previous case, it is important to identify the magnitude of gross disbursements dedicated to developmental food aid provided to the aforementioned countries (Table 3.4), which are listed in the following table (Table 3.5) in accordance with poverty headcount ratio at 1.90\$ a day. As Table 3.5 illustrates, Malawi represents the country receiving the highest level of food assistance which accounted for \$555.41 million during the period 2002-2017. Food aid provision to Malawi exceeds that delivered to other countries like Madagascar and the Democratic Republic of Congo whose population levels are higher than that of Malawi corresponding to about 18.6 million in 2017

(Madagascar’s population is slightly higher while the Democratic Republic of Congo’s one is even six times higher).

Table 3.5. Developmental food aid received in gross disbursements (million US dollars), 2002-2017

COUNTRIES	DEV. FOOD AID RECEIVED (MILLION USD)
MADAGASCAR	475.24
CONGO, DEM. REP.	506.90
BURUNDI	229.16
MALAWI	555.41

*Source: own elaboration based on data from OECD.Stat (2019)*

Regarding total food aid (developmental plus emergency one), the Democratic Republic of Congo receives the most significant level of food aid, by critically diverging from the other countries and, in this case, by “overcoming” the amount provided to Malawi (Table 3.6). Burundi, despite its small population (about 11 million), gets an assistance amount similar to that of Madagascar, by therefore receiving substantially higher gross disbursements for emergency food aid.

Table 3.6. Total food aid received in gross disbursements (million US dollars), 2002-2017

COUNTRIES	TOTAL FOOD AID RECEIVED (MILLION USD)
MADAGASCAR	581.97
CONGO, DEM. REP.	2,078.33
BURUNDI	581.73
MALAWI	971.34

*Source: own elaboration based on data from OECD.Stat (2019)*

In order to provide a more consistent analysis, it is essential to study more in detail the aforementioned countries also from other perspectives, by taking into account, for example, food security levels and socio-economic data.

### 3.2. Poverty and food aid

After having investigated poorest countries by GNI per capita and poverty headcount ratio at \$1.90 a day and their relative total amount of developmental food aid received from 2002 to 2017, it is now essential to analyse their main donors and their relative gross disbursements provided to the selected recipients. The countries in Table 3.7 are listed according to the place taken in the list of poorest countries developed by the World Bank by GNI per capita in PPP terms. They include also countries like Malawi and Madagascar (5<sup>th</sup> and 9<sup>th</sup> by GNI per capita, respectively) which resulted among those with the highest levels of poverty headcount ratio at \$1.90 a day.

Table 3.7. Aggregate development food aid flows provided to poorest recipients by donors expressed in gross disbursements (million, US dollars), 2002-2017

<b>POOREST COUNTRIES ' LIST (WB)</b>	<b>RECIPIENTS</b>	<b>DONORS</b>	<b>AGGREGATE FOOD AID PROVIDED (MILLION, USD)</b>	<b>% OF TOTAL FOOD AID PROVIDED</b>
<b>1<sup>st</sup></b>	<b>CENTRAL AFRICAN REPUBLIC</b>	JAPAN	26.35	26.07
		FRANCE	25.84	25.56
		USA	24.81	24.54
		OTHER	24.09	23.83
		<b>TOTAL</b>	<b>101.09</b>	<b>100.00</b>
<b>1<sup>st</sup></b>	<b>BURUNDI</b>	USA	114.83	50.11
		GERMANY	34.77	15.17
		JAPAN	26.93	11.75
		OTHER	52.63	22.97
		<b>TOTAL</b>	<b>229.16</b>	<b>100.00</b>
<b>2<sup>nd</sup></b>	<b>CONGO, DEM. REP.</b>	USA	250.56	49.43
		GERMANY	104.92	20.70
		JAPAN	85.32	16.83
		OTHER	66.10	13.04
		<b>TOTAL</b>	<b>506.90</b>	<b>100.00</b>

<b>3<sup>rd</sup></b>	<b>NIGER</b>	USA	260.09	40.26
		EU institutions	163.21	25.26
		JAPAN	54.06	8.37
		OTHER	168.69	26.11
		<b>TOTAL</b>	<b>646.05</b>	<b>100.00</b>
<b>5<sup>th</sup></b>	<b>MALAWI</b>	USA	285.86	51.47
		UK	137.87	24.82
		EU institutions	78.45	14.13
		OTHER	53.23	9.58
		<b>TOTAL</b>	<b>555.41</b>	<b>100.00</b>
<b>9<sup>th</sup></b>	<b>MADAGASCAR</b>	USA	377.65	79.47
		EU institutions	57.31	12.06
		GERMANY	18.20	3.83
		OTHER	22.08	4.64
		<b>TOTAL</b>	<b>475.24</b>	<b>100.00</b>

*Source: own elaboration based on data from OECD.Stat (2019)*

As previously analysed, Niger, Malawi and the Democratic Republic of Congo (DRC) represent the most significant countries by aggregate developmental food aid during the 2002-2017 period, amounting to \$646.05, \$555.41 and \$506.90 million respectively. Table 3.7 shows that the US constitutes the largest donor for all recipients (except for Central African Republic) by diverging considerably from other donors. For example, US provision accounts for 79.47% of Madagascar's total aid received. Other important donors are also represented by Japan, Germany and the EU.

Now it may be interesting to discuss more in detail about which kinds of relationships bind donors and the analysed recipients, in order to investigate whether developmental food aid flows are driven by specific economic and political interests.

### *Central African Republic*

Central African Republic (CAR) constitutes an African landlocked country located in the central area of the continent and bordered by several countries, comprising Sudan, Chad, the Democratic Republic of Congo and South Sudan. Under the political perspective, it was a former French colony until its independence (gained in 1964) and nowadays it represents a semi-presidential constitutional republic. During the last decades, the country was significantly crippled by political instability bursted into political crises and the most recent one (still ongoing) started in 2012 (Council on Foreign Relations, 2019).

Central African Republic represents one of the poorest countries according to the World Bank and it received developmental food aid, amounting to over \$101 million from 2002 to 2017, mostly by the three following donors: Japan, France and the US (OECD, 2019). Japan-Central African Republic relations date back to 1960, when Japan recognised the independence of the latter. In the last years, Japan considerably focused on playing a more active role in the Africa's economic scenario and, in 2016, the Tokyo International Conference on Africa Development was held in Nairobi in order to promote investment and increase economic growth in African countries. Regarding trade relations between the two countries, CAR exports to Japan mostly timber by totalling \$7.19 million in 2017. Japan, instead, exports mainly medical and machinery equipment and metal manufactures, by reaching \$2.19 million value in 2017 (Ministry of Foreign Affairs of Japan, 2019e). Japan significantly commits to ensure security and peace in CAR as well, for instance, it disbursed \$500,000 to restore CAR's democracy in 2015 (Veras, 2018). Moreover, Japan established a peace agreement with armed groups in CAR in February 2019 (Ministry of Foreign Affairs of Japan, 2019e).

CAR and France share a deep and tight relationship dating back to over one century ago, as a matter of fact, CAR was a French colony from early 20<sup>th</sup> century until World War II. Despite the recognition of CAR's independence, France continued to be very present in the country from a political perspective. For example, it had significant influence over the choice of CAR's presidents and was, and still is, relevantly engaged with maintaining order and peace in the country (Signé, 2019). France's assistance provision focuses mainly on humanitarian aid, security promotion and democracy protection and, in 2016,

it committed to disburse €85 million over three years to achieve these objectives (over €38 million were already provided in 2017). These two countries are also importantly related from an economic aspect, for instance France is the major investor in the Central African Republic and some French companies like Orange, Total and Air France manage some operations in CAR. The latter constitutes, indeed, a significant reserve of oil, gold, uranium, as well as being rich in timber (Smith, 2015). In addition, trade between them amounted to €50 million in 2016 (Ministry of Europe and Foreign Affairs, 2019).

Another CAR's important development food aid donor by gross disbursements is represented by the United States. CAR established with the latter positive diplomatic ties which were, however, strongly challenged by violence and conflicts. For example, embassy services were forced to be suspended multiple times in the past due to turmoil and insecurity conditions (US Department of State, 2019a). The US provides aid to CAR especially in the fields of democracy and security promotion and humanitarian assistance. From 2016, the US disbursed \$300 million aiming at restoring the country at both socio-political and economic levels (US Department of State, 2019a). Concerning the economic aspect, CAR currently enjoys a preferential trade agreement with the US avoiding the application of trade restrictions. In 2015, the value of trade between them totalled \$37 million and a great share of it was linked to US exports ranging from machinery to vehicles (Ott, 2018).

### *Burundi*

Burundi is a landlocked country situated in the central region of Africa, close to the African Great Lakes. It constitutes a presidential republic today, but it was a former German, and then Belgian, colony until 1962. Burundi, as an independent country, underwent an important evolution regarding its government, for instance it first consisted of a monarchy which was then replaced by a republic based on a one-party state due to social unrest and several episodes of violence. After the establishment of the republic, Burundi kept on being subject to serious political turmoil and conflicts among ethnic groups. For example, it had to face serious tensions and social discontent after unfair political elections in 2015, which allowed President Nkurunziza to govern the country for the third term.

The US and Burundi established relations in 1962 when the latter became independent from Belgium. The US plays an important role in strengthening economic development, ensuring stability from the socio-political point of view and protecting democracy (US Department of State, 2018). Furthermore, it commits to improve poverty, food security and sanitation levels in Burundi, for example the latter received \$114.8 million from the US in development food aid during the 2002-2017 period (OECD.Stat, 2019). Regarding trade relations between the two countries, Burundi imports from the US mainly electronic components and computer while it exports agricultural commodities like coffee (US Department of State, 2018). In recent years, however, political relations between the US and Burundi became more strained due to the re-election of President Nkurunziza, which generated violence and unrest in the country (Jones et al., 2015). As a result, the US threatened to stop aid provision to Burundi but, at the same time, countries like Russia and China began to show interest toward Burundi. The latter significantly attracts the US interest since it plays a relevant peacekeeping role in the region and, in particular, in CAR and Somalia (Bugnacki, 2015).

Germany constitutes another important development food aid donor for Burundi. They share a friendly relationship stretching back to the late 19<sup>th</sup> century which, however, started to deteriorate, like in the US case, because of President Nkurunziza's re-election in 2015. German assistance provision mostly focuses on health, poverty and stability, as well as economic development (Embassy of the Republic of Burundi to Germany, 2016). During the 2002-2017 period, Germany disbursed \$34.77 million to Burundi in development food aid (OECD.Stat, 2019).

Like with the US, Burundi established relations with Japan in 1962 when the former gained its independence. Japan provides assistance to Burundi in order to meet two objectives in particular: peace promotion and improvement of living conditions (Japan International Cooperation Agency, 2019a). For instance, Burundi has been severely harmed by a long-lasting civil war and by continuous tensions which have hindered its economic growth and led to poverty (Embassy of Japan in Burundi, 2014). Concerning development food aid, Japan disbursed \$26.9 million to Burundi from 2002 to 2017 (OECD.Stat, 2019).

### *Democratic Republic of Congo*

The Democratic Republic of Congo (DRC) is the largest country in Sub-Saharan Africa in terms of geographical area and one of the most populated in the continent. It was a Belgian colony until 1960 under the name of Belgian Congo and then it became Republic of Congo. However, a dictatorship led by Mobutu arose in the '70s by renaming the country as Zaire and governed it until 1997, when he was defeated during the first Congo war. The country was then called the Democratic Republic of Congo and it became a semi-presidential republic. The political situation continues to be quite unstable and long-standing conflicts are still significantly hitting the country.

The Democratic Republic of Congo receives development food aid mainly by the US, followed then by Germany and Japan. The DRC and the US established an important relationship over the years from both the political and the economic perspective. For example, the DRC exports to the United States copper (corresponding to over half of DRC's exports to the latter) as well as diamonds, tantalum and coffee. The DRC, instead, represents an export market for the US regarding machinery, pharmaceuticals and poultry (US Department of State, 2018c). In addition to enhancing investment and trade, the US is significantly engaged with encouraging peace and stability and promoting democratic institutions, as a matter of fact the DRC plays an essential role in the security and stability of the region since it occupies a massive and central geographical position (Hambrecht, 2018). Moreover, US aid provision is also considerably focused on food security, health and education (Congressional Research Service, 2019b). In recent years, the US disbursed to the DRC about \$500 million in assistance annually and in FY2017, US development aid amounted to \$317 million (US Department of State, 2018c).

Germany and the DRC share a long lasting diplomatic and economic relationship as well, which substantially strengthened when Germany actively supported the DRC's reconstruction after severe conflicts in 2002. In more recent times, Germany still provided significant assistance to the DRC, for example in 2015 it committed to disburse about €153.4 million in bilateral aid for the following two years (Berlin Global, 2017). However, planning on new rounds of development aid has been suspended in 2017 due to political tensions and abuse of human rights in the DRC. German assistance provision relevantly focuses on security and peace promotion, poverty eradication, health

improvement and disaster management (Federal Foreign Office, 2019a). Germany and the DRC are also tied by quite important trade relations which, however, are weakening over the last years, for example the DRC constitutes an export market for Germany in relation to electronic products and machinery (its exports to the DRC valued \$94 million in 2016) whereas DRC's exports to Germany, including mainly coffee and precious stones, amounted to \$119 million in 2016 (Federal Foreign Office, 2019a).

Another important DRC's development food aid donor is represented by Japan, which has established political and economic relations with the former since the '70s. Japan played a significant role in the rebuild of the country both back in the '70s and in more recent times, in particular from 2006 when the civil war ended. Japan's reconstruction effort considerably focused on increasing the access to social services, fostering economic growth and sustainability and promoting peace and security (Japan International Cooperation Agency, 2018b). Human resource development represents also a key priority in Japan's assistance provision to the DRC as declared at the 6th Tokyo International Conference on African Development (AfricaNews, 2017). Concerning trade relations between the two countries, the DRC's exports to Japan valued \$2.9 million in 2018 and mostly comprised fish, coffee and wood, while its imports from Japan, amounting to \$57 million, included machinery and motor vehicles (Ministry of Foreign Affairs of Japan, 2018).

### *Niger*

Niger is an African country located in the western area of the continent and it is a former French colony which gained its independence in 1958. Today, it constitutes a semi-presidential republic. From its independence, however, it "experienced" three military rulings and five constitutions which critically affected Niger's political stability. Nevertheless, the country restored democracy and civilian rule thanks to a military coup in 2010 after a severe political turmoil (US Department of State, 2018e). In 2011, Mahamadou Issoufou won the presidential elections in Niger and he was re-elected then in 2016.

Niger and the United States have established friendly relations since the latter's independence in 1960. The US significantly engaged with ensuring regional security and

stability due to Niger's vulnerability to threatening crises occurring in neighbouring countries like Mali and Libya (The Conversation, 2018). A great share of US assistance also aims at improving health and food security levels, alleviating poverty and encouraging economic development, in addition to supporting counterterrorism initiatives (US Department of State, 2018e). For instance, Niger plays a crucial role in the fight against terrorism since transit routes used by terrorist groups are located in the country and, as a result, US military presence is relevant (Karimi, 2018). In 2018, the US pledged \$437 million through the Millennium Challenge Corporation compact to improve infrastructure and agriculture in Niger. By taking into account trade relations, they are supported by preferential market access as other poor countries. US exports to Niger consist mainly of machinery, vehicles and rice while Niger produces essentially agricultural commodities (US Department of State, 2018e).

The EU represents another significant development food aid donor for Niger, by providing \$260 million during the 2002-2017 period (OECD.Stat, 2019). As well as improving poverty and food security levels, EU committed to encourage investment and economic development, support good governance and human rights and improve education and health (European Commission, 2019f; European External Action Service, 2016). Trade relationships are also considerably supported by the EU through barrier-free market access thanks to the Cotonou agreement, i.e. an arrangement in which the EU commits to foster economic development and alleviate poverty in African-Caribbean-Pacific (APC) countries. In the 2014-2020 National Indicative Programme for Niger, the EU committed to provide over €596 million to achieve the afore-mentioned objectives (European External Action Service, 2016).

Niger and Japan established a friendly and long-lasting relationship as well, stretching back to nearly 60 years ago. Trade relations between them essentially consist of Japan's exports to Niger, including vehicles and machinery and reaching \$5.2 million in 2018. Niger, instead, mostly exports to Japan precious metals (Ministry of Foreign Affairs of Japan, 2019). Concerning aid provision to Niger, Japan is mainly focused on three major areas, that is rural development, health and education (Japan International Cooperation Agency, 2018c). Furthermore, Japan disbursed over \$54 million to Niger in developmental food aid from 2002 to 2017 (OECD.Stat, 2019)

## *Malawi*

Malawi is an African country situated in the southern area of the continent and constituted a British colony until 1964. In 1966 it became a republic with a one-party government, which will become a multi-party one in 1994. Since its independence, Malawi has been characterised, indeed, by a quite stable political environment.

Malawi and the US are characterised by a tight relationship from the political and military point of view, for instance they are significantly engaged with peacekeeping initiatives in Southern Africa and in countries like Cote d'Ivoire. Moreover, they cooperated in order to achieve relevant improvements in education, agriculture and health in Malawi (US Embassy in Malawi, 2018). In 2017, the US disbursed \$197.7 million in bilateral assistance aiming at meeting the above-mentioned objectives (US Department of State, 2018b). Trade and investment are also quite significant between the two countries, for example some US firms invested in sectors like agriculture, energy and retail. Regarding trade relations, US exports to Malawi, including electronic components and pharmaceuticals, amounted to \$40 million in 2016 while Malawi's exports to the United States reached \$75 million and involved coffee, clothing, tea and tobacco (Cook, 2017; US Department of State, 2018b).

The UK and Malawi share a long-lasting relationship since the latter was a British Protectorate until 1964 when it gained its independence. Today, they are both members of the Commonwealth (UK Department for International Development, 2018). Their diplomatic ties faced several ups and downs over the years, however the UK kept on providing assistance to encourage good governance and democracy and eradicate poverty, as well as to promote stability at both the local and international level (UK Government, 2018b). This last element is very significant to the UK since it may considerably affect UK interests in countries like South Africa and Tanzania and its investment flows (UK Department for International Development, 2018).

Malawi's third largest development food aid donor is represented by the European Union with which it shared cordial political and economic relations. Their framework is provided by the Cotonou Agreement, through which the EU pledges to advance economic development, fight against poverty and increase integration in the global market of Malawi and other APC countries (European External Action Service, 2016). For the

2014-2020 period, the EU committed to provide €560 million to Malawi via the EU National Indicative programme for Malawi targeting principally agriculture, education and governance (European Commission, 2019e). The EU represents also a Malawi's fundamental trading partner, for instance Malawi's exports to the European Union, including tobacco, tea and sugar, constitutes 34.3% of its total exports while EU exports to Malawi (e.g. machinery and chemicals) account for 12.8% of Malawi's imports (European External Action Service, 2016; International Trade Centre, 2018). Like other recipients, Malawi can enjoy preferential market access thanks to the EBA programme (International Trade Centre, 2018).

### *Madagascar*

Madagascar is an African island country located in the Indian Ocean. It was a French colony until 1960 and now it is a semi-presidential constitutional republic. After its independence, however, the political environment was not very stable, for instance Madagascar experienced four constitutions. In 1992, the country was officially declared a constitutional democracy but this did not stop tensions. For example, significant social unrest occurred in the country in 2009 and led to President Ravalomanana's resignation. Since then, Madagascar's political situation has seemed more stable.

The US represents one of the most important aid donors for Madagascar (USAID, 2019), nevertheless relations between the two countries faced some challenges over their history. For instance, the US decided to freeze direct assistance to Madagascar after the 2009 political crisis (then restored in 2013). However, the former kept on providing aid related to food security and health through NGOs and other associations (US Department of State, 2019). The US and Madagascar are also important trade partners, as a matter of fact US exports to the latter comprise aircraft, vehicles, machinery and wheat while it imports precious metals, garments and vanilla beans (US Department of State, 2019). In addition to food security and health, US assistance focuses on environment protection and improvement of disaster management as well. In 2017, \$83 million were provided by the US in development aid and other \$19 million in humanitarian aid (US Embassy in Madagascar, 2018).

Like some previous countries, EU-Madagascar relations are significantly based on the Cotonou agreement, which provides the framework regulating their economic and

political ties. Relationships between them cooled during Madagascar's political crisis but they were re-established in 2014 (European Commission, 2019d). For the 2014-2020 period, the EU pledged to disburse €518 million, in order to support democracy and good governance, agriculture and infrastructure (European Commission, 2019d; European External Action Service, 2016). Concerning commercial relations, the EU constitutes one of the Madagascar's largest trading partners in both imports and exports (24% and 53% of the total, respectively) and they share also relevant trade partnerships (European External Action Service, 2016).

Relations between Madagascar and Germany have usually been positive as well, despite the suspension of direct aid provision from 2009 to 2015 due to political tensions in Madagascar. German bilateral assistance mainly aims at alleviating poverty, increasing food security levels, ensuring environment protection, improving the infrastructure and economic systems (Federal Ministry for Economic Cooperation and Development, 2019). In 2016, Germany disbursed €59.6 million to Madagascar in assistance and then €29.6 million in 2018 (Federal Foreign Office, 2019b). Economic relations between them are also quite significant, for instance Madagascar's exports to Germany, including apparel, metals and agricultural commodities, totalled €229.9 million whereas Germany's exports, comprising vehicles, chemicals and machinery, amounted to €42 million in 2017 (Federal Foreign Office, 2019b).

After having described political and economic relations between analysed recipients and relative donors, it is now important to investigate the potential existence of specific interests behind development food aid flows.

Concerning CAR, it represents the poorest country by GNI per capita and despite the alarming poverty data, other aspects seem to play a crucial role in the relationships with its donors. From an economic perspective, CAR significantly attracts advanced countries' attention due to its richness in uranium and precious metals while, from a geo-political perspective, it can substantially have an impact on regional and international stability. For instance, instability in CAR may fuel tensions in neighbouring countries as well, e.g. Sudan and Uganda (Darracq, 2014). Furthermore, superpowers like Russia and China are

becoming importantly attracted by CAR's natural resources and, thus, more and more present in the country, by threatening the analysed donors' interests (Haque, 2018; McGregor, 2018; Plichta, 2018). Regarding France in particular, its commitments toward CAR are also driven by the fact that neglecting one of its former colonies would represent a sign of weakness of France at the international level, in addition to a failure from the humanitarian point of view (Lokongo, 2014).

Diplomatic ties between Burundi and its most significant donors, that is the US, Germany and Japan, were considerably challenged by severe conflicts in the country which led to the suspension of direct bilateral aid provision. However, they committed to provide aid to Burundi through alternative channels like NGOs. Concerning US-Burundi relations in particular, other factors should be taken into consideration when analysing food aid flows. For instance, US "enemies" like China and Russia are playing a more and more active role in the region and, in addition, Burundi can be of critical importance in keeping the peace in neighbouring countries.

The Democratic Republic of Congo constitutes the third poorest country in the world by GNI per capita. Similarly to other African countries, political crises and social unrest in the DRC severely hindered its economic development and constrained assistance provision from donor countries (i.e. the US, Germany and Japan). Due its geographical location, ensuring security and stability is critically important nowadays and this may considerably affect aid provision to the DRC. Its critical position is also attracting superpowers' interests which have already focused on military forces, like Russia, or on natural resources, like China. Furthermore, it is essential to underline that all DRC's donors are engaged in substantial trade relations with it, especially the US in terms of value, entailing mostly copper, coffee and precious stones.

Niger, instead, receives developmental food aid mainly by the US, EU and Japan and it amounted to over \$646 million during the 2002-2017 period (OECD.Stat, 2019). When discussing assistance provision to Niger, it is fundamental to highlight its relevant role in the fight against terrorism which may constitute an important driver for providing aid. Among Niger's donors, this assertion might be more associated with US-Niger relations, given the substantial US involvement in this regard. Another important aspect to be taken into consideration is migration and it concerns, instead, the European Union. Aid

provision may represent a solution to this phenomenon, by decreasing illegal migration flows from the African continent.

Malawi constitutes another country with dramatic levels of both poverty (it ranked 5<sup>th</sup> among the poorest countries). Developmental food aid to Malawi totalled \$555.41 million from 2002 to 2017 and it was provided mainly by the US, UK and the EU (OECD.Stat, 2019). Like some previous cases, several factors characterising relations between Malawi and its donors may play a relevant role when investigating food aid flows and these range from trade partnerships to security matters. For instance, they are tied by significant investment and trade relationships (e.g. some US companies operate in the energy and agriculture sector) in addition to be relevantly concerned with national and international security. This aspect is particularly important to the UK since Malawi's instability may have a critical impact on its economic interests in neighbouring countries and also to the US because they are both engaged in common peacekeeping programs.

Madagascar represents the 9<sup>th</sup> poorest country by GNI per capita and also the country with the highest level of poverty headcount ratio at \$1.90 a day (2011, PPP), that is 77.6%. Also in this case, political crises and social unrest had a significant impact on aid flows between Madagascar and its main relative donors, including the US, EU and Germany. The US relevantly diverges from the other donors, by accounting for 79.5% of total development food aid provided (OECD.Stat, 2019). Moreover, Madagascar and its donors are also important trading partners and the related interests may relevantly affect food aid provision to Madagascar.

Another important step to take in the analysis is investigating development food aid provided per capita, in addition to aggregate food aid provided from 2002 to 2017. The former is obtained through the average value of the ratios between average development food aid gross disbursements and population registered each year during the selected period. Table 3.8 illustrates also the average food aid provided per year computed by applying both the median and the mean (it depends on the presence of outliers). For instance, the median is a useful means to minimise the effects of outliers on the time series.

Table 3.8. Aggregate development food aid received (million, US dollars) and food aid provision over total population (US dollars) related to selected recipients, 2002-2017

RECIPIENTS	DONORS	AGGREGATE FOOD AID PROVIDED (MILLION, USD)	AV. FOOD AID PROVIDED PER YEAR (MILLION, USD)	FOOD AID OVER POPULATION (USD)
<b>CENTRAL AFRICAN REPUBLIC</b>	JAPAN	26.35	1.61	0.36
	FRANCE	25.84	1.61	0.36
	USA	24.81	1.55	0.35
	OTHER	24.09	1.55	0.35
	<b>TOTAL</b>	<b>101.09</b>	<b>1.58</b>	<b>0.36</b>
<b>BURUNDI</b>	USA	114.83	7.18	0.78
	GERMANY	34.77	2.17	0.23
	JAPAN	26.93	1.68	0.19
	OTHER	52.63	3.29	0.41
	<b>TOTAL</b>	<b>229.16</b>	<b>3.58</b>	<b>0.40</b>
<b>CONGO, DEM. REP.</b>	USA	250.56	15.66	0.24
	GERMANY	104.92	6.56	0.09
	JAPAN	85.32	5.33	0.08
	OTHER	66.10	4.13	0.07
	<b>TOTAL</b>	<b>506.90</b>	<b>7.92</b>	<b>0.12</b>
<b>NIGER</b>	USA	260.09	16.26	1.01
	EU institutions	163.21	10.20	0.60
	JAPAN	54.06	3.38	0.21
	OTHER	168.69	10.54	0.59
	<b>TOTAL</b>	<b>646.05</b>	<b>10.10</b>	<b>0.60</b>
<b>MALAWI</b>	USA	285.86	17.87	1.21
	UK	137.87	8.62	0.59
	EU institutions	78.45	4.90	0.33
	OTHER	53.23	3.32	0.21
	<b>TOTAL</b>	<b>555.41</b>	<b>8.68</b>	<b>0.59</b>

<b>MADAGASCAR</b>	USA	377.65	23.60	1.11
	EU institutions	57.31	3.58	0.18
	GERMANY	18.20	1.14	0.05
	OTHER	22.08	1.38	0.07
	<b>TOTAL</b>	<b>475.24</b>	<b>7.43</b>	<b>0.35</b>

*Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)*

As Table 3.8 shows, Niger and Malawi are characterised by the highest level of food aid per capita, corresponding to \$0.60 and \$0.59, respectively. They are followed then by Burundi with food aid per capita equal to \$0.40. It can be noticed that high levels of aggregate food aid do not always correspond to high levels of food aid per capita, for example the DRC receives a considerable amount of food aid but its food aid per capita is the lowest one (\$0.12). Moreover, it can be seen that food aid per capita is not very related to countries' poverty levels, for example CAR, which is the poorest country by GNI per capita, receives just \$0.36 per capita in development food aid.

However, food aid over extremely poor population should be taken into account in order to better evaluate development food aid targeting among countries. The share of extremely poor population is obtained by taking into consideration poverty headcount ratios at \$1.90 a day (2011 PPP, % of population) related to the analysed recipients. In order to compute the ratio between development food aid provided and extremely poor population, the average of development food aid provision implemented annually during the 2002-2017 period is taken into account, as well as the average value of the previous poverty measure.

Table 3.9. Aggregate development food aid received (million, US dollars) and development food aid provision over extremely poor population (US dollars) related to selected recipients, 2002-2017

RECIPIENTS	AGGREGATE FOOD AID RECEIVED (MILLION, USD)	AV. FOOD AID PROVIDED PER YEAR (MILLION, USD)	FOOD AID OVER POOR POPULATION PER YEAR (USD)
CENTRAL AFRICAN REPUBLIC	101.09	1.58	0.56
BURUNDI	229.16	3.58	0.55
CONGO, DEM. REP.	506.90	7.92	0.14
NIGER	646.05	10.10	1.02
MALAWI	555.41	8.68	0.80
MADAGASCAR	475.24	7.43	0.47

Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)

As Table 3.9 illustrates, the situation is quite unchanged, for instance Niger and Malawi remain the countries with the highest value of received food aid per capita under extreme poverty conditions (\$1.02 and \$0.80, respectively) and the DRC the country with the lowest level, that is \$0.14. However, in this case CAR replaces Burundi in the third position by development food aid per capita received.

### 3.3. Food security definition and measurement

Poverty and food security are two significantly correlated phenomena, as a matter of fact food insecurity is usually considered as an extreme form of poverty. Sustainable Development Goals are, for instance, related to food security too, in particular the second goal aims at eradicating hunger, improving food security and encouraging sustainable agriculture (Food Security Information Network, 2018a). Before analysing food security measures and investigating the most food insecure countries, it is essential to discuss more in detail about food security definition and its main causes.

Food security represents a massively important matter today which has been studied in different fields and, given its multi-disciplinary relevance, it is not characterised by a unique definition. However, the definition provided by the 1996 World Food Summit can

be taken into consideration, that defines food security as the condition in which “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”. This definition contains the four core elements of food security: availability (amount of food available to a population), access (ability to secure an adequate quantity of food), utilization (intake of food required to satisfy dietary needs in terms of quantity and quality) and stability (over time). The absence of one or more of the previous conditions refers to the phenomenon of food insecurity and, accordingly, food security can be described as a continuum between food security and food insecurity placed at opposite sides (De Muro and Mazziotta, 2011; Jones et al., 2013). In order to measure it, several approaches exist according to the domain of food security to which they are related, ranging, for example, from prevalence of undernourishment, i.e. when caloric intake is below the threshold of dietary energy consumption required (FAO, 2018), to GDP per capita and Global Food Security Index when referring to the access domain (Jones et al., 2013).

#### Right to food and food sovereignty

Food security is relevantly linked to the right to food, internationally recognised by the UN Declaration of Human Rights. The latter refers to the right to adequate food, to feed oneself in dignity and it consists of a relevant objective governments and international agents have committed to fulfil (FAO, 2018). The realisation of both these two concepts involves obtaining food supply control by governments (e.g. making decisions on production, imports and exports) or by local farmers (e.g. keeping control of the land and making decisions about production). According to some experts, this corresponds to food sovereignty (Murphy and McAfee, 2005) and it can represent a critical food security enabler, given that the latter can be viewed as the ability to buy food in the international market in absence of trade restrictions (e.g. quotas and tariffs). Food sovereignty highlights, in addition, the significance of government intervention to improve food security levels.

### Acute food insecurity and malnutrition

Acute food insecurity consists of a severe degree of food insecurity, occurred in a specific area at a certain time, which significantly has an impact on livelihoods and lives despite context and rationale (Food Security Information Network, 2018b). This critical level of food insecurity can strongly depend on external changing conditions and it can manifest very rapidly due to shocks and unpredictable events (Arcuri et al., 2015; Integrated Food Security Phase Classification, 2017). The magnitude of acute food insecurity can be classified into different levels, by referring to the Integrated Food Security Phase Classification (IPC) or the Cadre Harmonisé (CH). Five IPC/CH phases have been identified and they are listed as follows: Minimal, Stressed, Crisis, Emergency and Famine. The last three IPC/CH phases require urgent assistance since people's lives are severely threatened by acute food insecurity. IPC/HC phase 1 and 2 (i.e. Minimal and Stressed) involve, instead, other types of intervention like livelihood preservation and disaster risk reduction (FAO, 2018a; Integrated Food Security Phase Classification, 2017).

Food insecurity is also linked to another phenomenon which is called malnutrition. Malnutrition refers to undernutrition, micronutrient deficiencies, overweight and obesity (Food Security Information Network, 2018a). In particular, undernutrition consists of the result of inadequate intake of dietary energy. Malnutrition can be categorised as acute malnutrition or chronic malnutrition; the former refers to insufficient nutrient intake leading to severe weight loss and, in the most extreme cases, to death. The latter is critically associated with stunting (i.e. when a child fails to reach the adequate height for his/her own age) and micronutrient deficiencies which generate negative long-term effects on people's lives (Development Initiatives, 2018). As a matter of fact, these may cause a lack of cognitive and physical skills fundamental to increase income-generating opportunities and labour productivity (Food Security Information Network, 2018a).

According to the Food Security Information Network (2018a), in 2018 about 113 million people, that is 14% of world population, suffered from acute food insecurity (IPC/CH phase 3 or above). Over 50% of this amount come from Africa and 24% from just seven Middle-Eastern countries. 13% of food insecure people needing urgent intervention came instead from Bangladesh, Afghanistan, Pakistan and Myanmar (South and South-Eastern

Asia). By comparing food insecurity data across time (in particular years 2016, 2017 and 2018 are taken into consideration), it has been identified a significant increase in acutely food insecure people from 2016 and 2017, as a matter of fact they were 108 million in 2016 and 124 million in the next year. From 2017 to 2018, instead, a decrease to 113 million people has been registered (Food Security Information Network, 2018a). These changing patterns were due to the occurrence of different events, ranging from natural to socio-economic ones including, for example, droughts and conflicts. As this assertion may suggest, it is very important to analyse the principal determinants of food insecurity in order to give a complete picture of this topic.

### Food insecurity drivers

High food insecurity levels are mostly generated by three elements: conflicts, economy-related and climate-related shocks or by a combination of them (FAO, 2017; Food Security Information Network, 2018a). Concerning conflicts, a relevant share of population requires urgent action since their sources of income are usually taken away and people are displaced in these situations. Conflicts lead also to market disruption, food price increases and to scarcity of food and other resources like fuel and water, by hindering critically economic development. Infrastructures are hit by conflicts as well and this may cause severe effects on the provision of humanitarian assistance, by making access security expensive and time-consuming. Another important driver for food insecurity is climate phenomena, such as floods and droughts, which have substantially increased since the Nineties (Intergovernmental Panel on Climate Change, 2018). Their effects have a long-term dramatic impact on agriculture by leading, for example, to the decline in production of cereals like wheat, maize and rice (Food Security Information Network, 2018b). Due to the increasing frequency of extreme climate events, many people may be unable to improve their living conditions and experience more and more dramatic food insecurity levels (IPC/CH phase 3 or above). For instance, frequent climate phenomena may severely hinder the ability of local population to cope with further shocks (Ilaboya et al., 2012). Climate change is often related to conflict since the former can cause displacements fuelling tensions and worsening conflicts (Food Security Information Network, 2018b). Economy-related shocks represent another significant

driver for food insecurity and, in 2018, they were considered as the principal cause for food insecurity especially in three countries (Sudan, Zimbabwe and Burundi). However, they often result from conflicts and may entail: currency depreciation, increasing unemployment and rising food prices.

According to the Food Security Information Network (2018a) and the Global Information and Early Warning System on Food and Agriculture (2018), the most severe food crises in 2018 occurred in Yemen, the Democratic Republic of Congo, Afghanistan and Ethiopia. Yemen represents the worst case since more than half of its population (53%, that is about 15.9 million people) were in Crisis (IPC/CH phase 3) or above food insecurity levels. In the other countries, a lower share of population suffered from acute food insecurity but the amount was quite critical, as a matter of fact 13.1, 10.6 and 8.1 million people were involved in the Democratic Republic of Congo, Afghanistan and Ethiopia (Food Security Information Network, 2018a). Therefore, the number of severely food insecure people in just these four countries accounted for 42.2% of the world population needing urgent intervention.

#### FAO's LIFDC classification

In order to identify the countries with the most critical food insecurity levels, FAO classified them as Low-Income Food-Deficit Countries (LIFDCs) and it established a list in the 1970s. According to FAO (2018c), LIFDCs are those countries which are characterised by two fundamental elements: they are poor and net food importers, that is countries where food imports exceed food exports. For instance, their classification entails three criteria (FAO, 2018c); firstly, a country's GNI per capita (computed by applying the World Bank's Atlas method) has to be lower than the historical ceiling implemented by the WB to establish eligibility for assistance by the International Development Association (i.e. a World Bank's department aiming at providing assistance to poorest countries). The most recent list refers to GNI per capita (2016) and the historical ceiling is equal to \$1.915 (2016). Secondly, an average of net food trade position, that is gross imports less gross exports, over the previous three years has to be

taken into account. Volumes of basic food commodities such as tubers, cereals, dairy products and meat are converted according to the energy content. The third criterion consists of the self-execution one, thanks to which countries meeting the previous criteria can send a request to FAO to be excluded from the LIFDC list.

In order to contrast continuous changes of status due to exogenous shocks and volatility, the “persistence of position” factor was established in 2001. This aims at postponing a country’s exit from the LIFDC category, even though it does not meet the first two criteria (income and food deficit criteria) for three consecutive years at maximum. Accordingly, a country is removed from the list if it is not eligible as a LIFDC for the fourth consecutive year.

The 2018 LIFDC list includes 51 countries among which 37 are from the African continent. Papua New Guinea, Nigeria and Pakistan were excluded from the list (the first two in relation to the first criterion while Pakistan failed to meet the second one). Two additional countries (Vietnam and Congo), instead, were included in the list (FAO, 2018c).

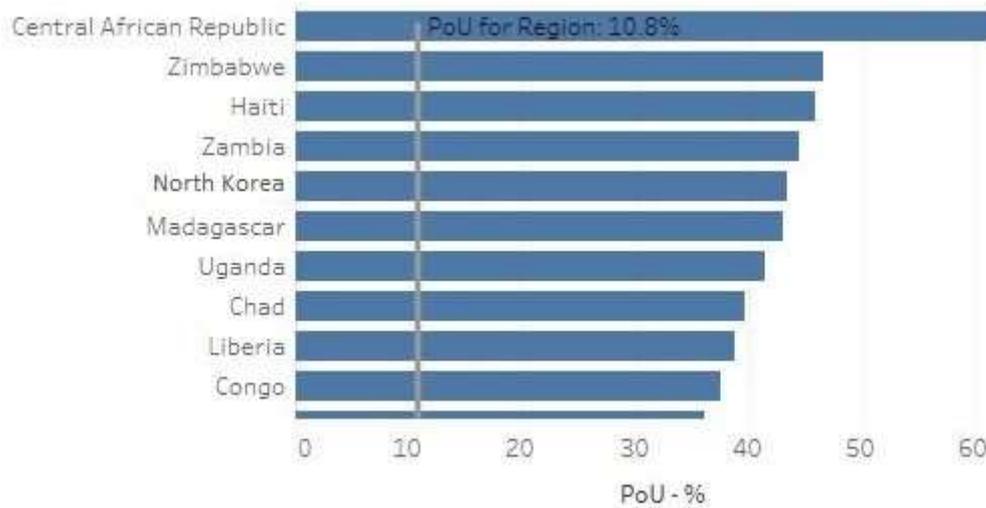
#### Prevalence of undernourishment

Food security is measured also by taking into consideration prevalence of undernourishment (PoU), expressed usually as a percentage of the analysed population.

According to FAOSTAT, Sub-Saharan Africa is the region characterised by the highest prevalence of undernourishment during the entire selected period (2000-2017). Central Asia and Southern Asia rank, instead, second. These two areas present a wide gap from the world average, although they registered a decreasing trend from 2000 to 2017.

By looking at the countries with the highest prevalence of undernourishment, it can be easily noticed that most of them (8 out of 10) are African countries, with the exception of Haiti and North Korea which rank third and fifth, respectively (Fig. 1). Central African Republic takes the first position with prevalence of undernourishment equal to 61.8% by diverging significantly from remaining countries. For instance, Zimbabwe, which ranks second, registers a value corresponding to 46.6%. In addition, the graph shows that all these countries present levels of PoU far above the world average corresponding to 10.8% (illustrated by the grey vertical line).

Fig. 1. Prevalence of undernourishment (%) by country, 2015-2017



Source: FAOSTAT, 2018

It is interesting to notice that, in most cases, countries registering the highest levels of poverty do not correspond to those characterised by the highest prevalence of undernourishment. The only exception is Central African Republic which takes the highest position from both poverty and food security perspectives.

As discussed in the case of poverty, it is important to investigate the amount of developmental food aid received in terms of gross disbursements (million US dollars) from 2002 to 2017 (Table 3.10). Countries are listed in accordance with the levels of PoU registered and data are always extracted from the OECD-CRS data system. The greatest amount of food aid is provided to Haiti (more than \$621 million), by relevantly diverging from the remaining countries. Central African Republic, ranking first, receives instead the lowest level of disbursements (over \$101 million), as argued in the poverty level analysis. However, it has to be pointed out that it has a significantly lower population (about 5 million people) than the other countries. Moreover, another important fact is that Zimbabwe and Zambia, despite showing some similarities, for example, in terms of population, received substantially different amounts of food aid.

Table 3.10. Developmental food aid received in gross disbursements (million US dollars), 2002-2017

COUNTRIES	DEV. FOOD AID RECEIVED (MILLION USD)
CENTRAL AFRICAN REPUBLIC	101.09
ZIMBABWE	404.86
HAITI	621.04
ZAMBIA	140.42

Source: own elaboration based on data from OECD.Stat (2019)

By taking into account emergency food aid as well (Table 3.11), it can be noticed that the situation is quite changed, as a matter of fact Central African Republic is no more the country receiving the least amount of food aid (its position has been replaced by Zambia). Besides, Zimbabwe ranks now first in terms of total food aid received among the countries with the highest PoU levels.

Table 3.11. Total food aid received in gross disbursements (million US dollars), 2002-2017

COUNTRIES	TOTAL FOOD AID RECEIVED (MILLION USD)
CENTRAL AFRICAN REPUBLIC	425.38
ZIMBABWE	1,623.62
HAITI	1,241.06
ZAMBIA	205.19

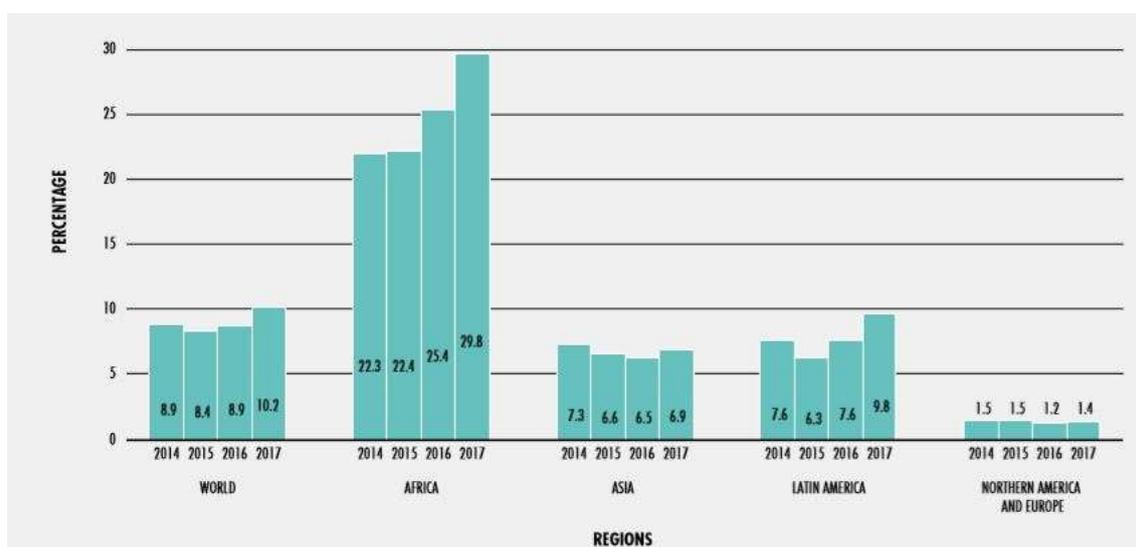
Source: own elaboration based on data from OECD.Stat (2019)

### Prevalence of severe food insecurity

In order to provide a complete picture regarding food insecurity, another important measure is the prevalence of severe food insecurity, referring to the Food Insecurity Experience Scale (FIES). For instance, PoU has shown some limitations that the latter is able to overcome. For example, its computations cannot be provided at certain disaggregated levels and, thus, give food insecurity information concerning specific populations within nations due to data constraints at the country level. FIES constitutes an approach based on surveys asking questions regarding behaviours and factors which may affect access to food (FAO, 2018b). Moreover, it has proven to be reliable in

identifying the level of severe food insecurity in diverse socio-cultural environments. As illustrated by the graph (Fig. 2), the share of severely food insecure people increased in 2017, with the exception of Northern America and Europe. The most significant increases registered especially in Africa, where the greatest amount of population suffered from severe food insecurity during the analysed interval, and in Latin America.

Fig. 2. Prevalence of severe food insecurity (%) by geographic region, 2014-2017



Source: FAO, 2018; p.8

### 3.4. Food security and food aid

Previously, countries with the highest levels of food insecurity have been analysed, as well as their relative aggregate amount of development food aid received. Like in the case of poorest countries, it may be interesting to identify most food insecure countries' donors and their relative aid provision during the 2002-2017 period (Table 3.12). In Table 3.12, countries are listed according to the prevalence of undernourishment (PoU) level, as discussed in the food security section.

Table 3.12. Aggregate development food aid flows provided to most food insecure countries by donors expressed in gross disbursements (million, US dollars), 2002-2017

RECIPIENTS	DONORS	AGGREGATE FOOD AID PROVIDED (MILLION, USD)	% OF TOTAL FOOD AID PROVIDED
<b>CENTRAL AFRICAN REPUBLIC</b>	JAPAN	26.35	26.07
	FRANCE	25.84	25.56
	USA	24.81	24.54
	OTHER	24.09	23.83
	<b>TOTAL</b>	<b>101.09</b>	<b>100.00</b>
<b>ZIMBABWE</b>	USA	116.91	28.88
	UK	107.93	26.66
	EU institutions	87.87	21.70
	OTHER	92.15	22.76
	<b>TOTAL</b>	<b>404.86</b>	<b>100.00</b>
<b>HAITI</b>	USA	450.15	72.48
	JAPAN	51.71	8.33
	EU institutions	41.30	6.65
	OTHER	77.88	12.54
	<b>TOTAL</b>	<b>621.04</b>	<b>100.00</b>
<b>ZAMBIA</b>	USA	74.22	52.86
	EU institutions	21.70	15.45
	UK	10.00	7.12
	OTHER	34.50	24.57
	<b>TOTAL</b>	<b>140.42</b>	<b>100.00</b>

Source: own elaboration based on data from OECD.Stat (2019)

As shown by Table 3.12, Haiti and Zimbabwe constitute the countries receiving the most significant level of developmental food aid, reaching \$621.04 and \$404.86 from 2002 to 2017, respectively. Like poorest countries, most food insecure ones get food aid mostly by the United States (except for Central African Republic), which diverges from other donors especially in Haiti and Zambia. In Central African Republic (CAR) and Zimbabwe, instead, aid provision is more evenly distributed among top donors. Other important donors are also: Japan, the EU and the UK.

In order to better understand development food aid flows between donors and recipients, it is fundamental to investigate the relations tying them and whether these flows are supported by interests of different nature. Central African Republic's relations with its donors are summarised later since they were already analysed in detail in the poverty section.

### *Zimbabwe*

Zimbabwe is an African country situated in the southern region of the continent. It was a British colony until 1965 under the name of Rhodesia and then in 1970 it became a presidential republic. However, harsh conflicts, which lasted more than a decade, severely affected the country's stability and led to its isolation at the international level. In 1980, the country changed the name into Republic of Zimbabwe. Zimbabwe's political tensions, nevertheless, did not stop and significantly increased during President Mugabe's authoritarian regime (1987-2017). Mugabe was repeatedly accused of human right violation by the international community and, therefore, it had an extremely negative impact on Zimbabwe's international diplomatic ties. In 2018, new elections were held thanks to a coup d'état occurred in the previous year and Mr. Mnangagwa became the new President.

As previously analysed, Zimbabwe represents the second most food insecure country. Development food aid is provided mostly from the US, UK and the EU. US-Zimbabwe relations were not so easy and faced several ups and downs in the past. The main conflicting factors were related to the absence of a democratic and transparent government and to the severe violation of human rights. Despite the implementation of sanctions on individuals threatening human right protection and restrictions on US development assistance and multilateral financing from 2001, the United States significantly contributed to support democracy, economic development and investment in Zimbabwe by becoming its main aid provider (US Department of State, 2018f). Nowadays, relations between the two countries remain tense and President Trump has recently decided to renew sanctions for another year since the actual Zimbabwean government seems not to support democracy (Mavhunga, 2018).

UK-Zimbabwe relationship appears to be complex as well, however, unlike the USA, it stretches back to over one century ago. For instance, Zimbabwe was a former British colony until 1980. Reasons behind tensions between the two countries, like in the case of the US, were attributed to the Zimbabwean government and its violation of human rights and undermining of democracy (Landale, 2017). In addition, Zimbabwean President Mugabe accused the British government of sabotaging the country and of being the main cause of its economic decline. As a result, the UK imposed sanctions to the Zimbabwean President and other top officials, as well as decreasing the level of direct development aid provision (Landale, 2017). However, the UK remains still today one of the Zimbabwe's top development aid donors (the latter was provided with about \$130 million yearly by the UK), by focusing especially on achieving socio-political stability, protecting human rights and fostering economic development, trade and investment (Thompson, 2018; UK Government, 2018a). In FY 2017-2018, the UK provided assistance amounting to \$118.6 million to Zimbabwe.

Ties between the EU and Zimbabwe are essentially linked to the EU agreement with African-Caribbean-Pacific (ACP) regions, called also Cotonou Agreement. This partnership is focused principally on three aspects, that is development, trade and political relationships and it aims at alleviating poverty and promoting economic growth in these areas, in order to make them more integrated in the global arena (European External Action Service, 2019). Respect of the rule of law and human right protection are also of critical importance in the relationship between the EU and Zimbabwe, as a matter of fact their abuse from the Zimbabwean government over the past years led to the imposition of sanctions by the EU to companies and individuals which represented a threat for democracy and human rights (Devanny, 2019). In the last years, these restrictions were substantially removed thanks to gradual improvements adopted by Zimbabwe (European Commission, 2019i). Concerning trade relations, Zimbabwe enjoys significant trade benefits with the EU market, enabling the former not to be subject to any quotas or duties. In 2015, the EU and Zimbabwe established the National Indicative Programme (2014-2020) committing the EU to disburse €234 million to the latter, particularly in the areas of agriculture, governance and health (European Commission, 2019i; European External Action Service, 2019).

## *Haiti*

Haiti is a Caribbean country situated on the island of Hispaniola and a former French colony (it gained its independence in the nineteenth century). Today, it constitutes a semi-presidential republic. By looking at its contemporary history, Haiti's most significant political events are represented by three coup d'état occurred in 1988, 1991 and 2004 that witness the climate of political instability in which Haitians lived. During the last years, Haiti's political situation seems to be calmer and in 2017 a new President was elected with democratic and fair elections (US Department of State, 2019b).

The US and Haiti share a long and tumultuous history and severe tensions between them still occur today. In addition to military presence, the US is a critical participant of the Haitian political scene (Chavez, 2018). The United States, moreover, is significantly involved in providing assistance to Haiti in order to alleviate poverty and reduce unemployment (Charles and Ordonez, 2019). Great efforts are also addressed to improve food security and healthcare, in addition to foster democracy and economic and trade development (US Department of State, 2019b). For example, it disbursed \$450.15 million to provide Haiti with developmental food aid from 2002 to 2017 (OECD.Stat, 2019). US assistance provision magnified especially after the 2010 earthquake and cholera outbreak, for instance the US disbursed until now more than \$5.10 billion to reconstruct the country (US Department of State, 2019b). Nevertheless, the conditions faced by Haiti have continued to be quite dramatic over the years due to extreme climate events and unfavourable economic factors (e.g. local currency depreciation and increase in food prices). Illegal migration constitutes an important driver for food aid flows to Haiti since many Haitians are leaving the country illegally to reach the US because of the difficult living conditions in their homeland. Accordingly, improving them through aid provision may be the only solution to put this phenomenon to an end. Although the current situation is not favourable, the United States is also encouraging investment in Haiti, as a matter of fact many US-based companies belonging, for example, to the airline, agribusiness and commercial bank sector, operate in Haiti (US Department of State, 2019b). Moreover, the United States significantly supports the clothing industry by importing apparel from Haiti, accounting for 90% of Haiti's total exports, and by making it eligible for US duty-free (Chavez, 2018).

Japan represents another important development food aid donor for Haiti following the United States. The former played an active role in reconstructing Haiti, which was severely hit by natural disasters and cholera outbreaks over the years, by providing short- and long-term development aid (Ministry of Foreign Affairs of Japan, 2019a; Takahashi, 2010). For example, Japan has implemented relevant development assistance programs (amounting to \$245.6 million) since the 2010 earthquake, dealing mostly with food security, health, education and disaster management (Ministry of Foreign Affairs of Japan, 2019a). The two countries are also tied by significant trade relations, for instance Japan's exports to Haiti, including mainly vehicles, totalled \$66.3 million and its imports from Haiti \$4 million, consisting essentially of clothing (Ministry of Foreign Affairs of Japan, 2019a).

Like EU-Zimbabwe relationship, diplomatic ties between the EU and Haiti are governed by the Cotonou Agreement since Haiti is included in the ACP regions. Moreover, Haiti constitutes a signatory of the EU-Caribbean Economic Partnership Agreement (EPA), i.e. a free trade agreement fostering investment, trade and economic development, and thanks to it, Haitian goods can freely enter the EU market without being subject to trade barriers like quotas and tariffs (European External Action Service, 2019). Regarding EU development assistance provision to Haiti, the former significantly contributed to the reconstruction of Haiti and a relevant focus was set on economic development, poverty, food security and governance. During the 2008-2013 period, the EU disbursed €889 million in assistance to rebuild the country and it committed also to provide €420 million in the 2014-2020 period (European Commission, 2019c; European External Action Service, 2019).

### *Zambia*

Zambia is a country located in the southern area of Africa and it constitutes a presidential constitutional republic. Until 1964, however, it was a British colony. From the political point of view, Zambia has always been quite stable since its political leaders significantly committed to protect democracy, reduce corruption and strengthen foreign affairs.

During the 2002-2017 period, Zambia received \$140.4 million in developmental food aid by the US, EU and the UK. The United States and Zambia established a friendly

relationship dating back to 1964 when the latter became independent. US aid provision mainly aims at eradicating poverty, improving sanitation and health, supporting the rule of law and democracy and promoting economic development and peace (USAID, 2019; US Department of State, 2018d). During the last decade, Zambia received more than \$500 million each year from the US in order to achieve the previous objectives (US Department of State, 2018d). Besides, the US is considerably engaged with encouraging private-sector investment in Zambia where American businesses are already quite present in the agricultural sector (US Embassy in Zambia, 2015). By taking into account trade and economic relations, Zambia enjoys significant trade benefits with the US allowing the former's products to be relieved of trade barriers. The US represents an important export market for Zambia concerning copper, tea, coffee, precious stones and cobalt. Zambia, instead, mostly imports from the US machinery, vehicles and rubber (US Department of State, 2018d).

Zambia established a strong relationship with the EU, which represents the second largest donor by aggregate development food aid. Like CAR and Zimbabwe, EU-Zambia political relations are significantly associated with the Cotonou Agreement dealing with human rights, democracy and development. The Common Market for Eastern and Southern Africa (COMESA), i.e. an economic community fostering regional economic integration in the area, plays a fundamental role in this relationship because, firstly, Zambia is a member of COMESA and, secondly, the EU established an important partnership with it as well (European Commission, 2019h). For instance, the EU takes into account very seriously COMESA's needs when providing assistance to the country, which focuses mostly on creating new jobs, encouraging economic development and investment and promoting trade (European External Action Service, 2016). In order to contribute to the achievement of these goals, the EU applied the Everything But Arms (EBA) initiative aiming at promoting economic and trade relations with poorest countries via a barrier-free access to the EU market (European Commission, 2019h). In 2016, the value of trade between the EU and Zambia reached €786 million and mainly involved chemicals, machinery, as EU's exports to Zambia, and agricultural commodities, as Zambia's exports (European External Action Service, 2016). For the 2014-2020 period, the EU committed to disburse over €484 million, through the National Indicative

Programme for Zambia, to be distributed mainly among three key areas: energy, agriculture and governance.

Another important development food aid donor for Zambia is the UK with whom it enjoys diplomatic ties from a long time. The UK is significantly engaged with encouraging investment in Zambia in key sectors such as agriculture, energy and mining and, in order to achieve this, it commits to increase the competitiveness level of Zambia's economy (UK Government, 2019a). The UK represents also an important export market for Zambia, especially for precious stones, copper and honey, whereas the UK mainly exports to Zambia machinery, pharmaceuticals and vehicles (The High Commission Republic of Zambia, 2016). It put great effort through assistance provision into improving economic growth and trade relations, reducing poverty and food insecurity and promoting regional stability (The High Commission Republic of Zambia, 2016; UK Department for International Development, 2018). It planned to disburse about \$54.6 million during the 2019-2020 period (UK Government, 2019a). However, the UK decided to freeze direct bilateral aid to Zambia in 2018 due to corruption episodes and fund abuse allegations (Funga, 2019).

After having analysed political and economic relations between the most food insecure countries by PoU and their relative development food aid donors, it is now important to investigate whether these are driven by specific interests other than the actual population need for foreign assistance. As previously analysed, Central African Republic's main development food aid donors consist of Japan, France and the US. As well as eradicating poverty and hunger, relations between CAR and its donors seem to target also other objectives preserving their economic and geo-political interests in the country. These range from natural resource exploitation to regional stability and, in the case of France, global-level reputation is also critical in establishing relationships with CAR.

Unlike CAR, Zimbabwe's main aid donors, that is the US, UK and EU institutions, faced some difficulties in establishing diplomatic ties with it, particularly in relation to local government's violation of democratic principles and human rights. As a matter of fact, all the analysed donors implemented restrictions on direct bilateral assistance due to this reason but at the same time they continued to provide aid through multilateral channels

in sectors like food security and health. Accordingly, assistance provision seems more targeted to people in actual need in this case.

Regarding Haiti, the largest development food aid donor is represented by the US, followed then by the EU and Japan, from which it significantly diverges. Especially in the relationship between Haiti and the United States, different interests come into play ranging from the economic to the socio-political sphere. For example, they established important trade relations particularly in the apparel sector (the US is the Haiti's most important export market for this field) and many US firms operating in sectors like agriculture and airline relevantly invested in Haiti. Another important factor to be taken into account consists of illegal migration flows from Haiti to the US, that are becoming very significant due to the dramatic conditions in which Haitians are living. Thus, assistance provision may represent an essential means for the US in order to limit this alarming phenomenon. Relations between Haiti and other donors appear, on the other hand, not to be affected by particular aspects diverging from actual need for assistance.

Zambia constitutes a country with high food insecurity levels but, at the same time, it is characterised by a great potential from the economic perspective thanks to its wealth in precious stones, coffee and other agricultural products. For this reason, Zambia may attract investment from several advanced economies like China (Solomon, 2018). Its major development food aid donors (i.e. the USA, EU institutions and the UK), indeed, are aware of Zambia's potential and, accordingly, enjoy significant trade and investment relationships with Zambia, which its donors are willing to protect. As the previous assertions may suggest, aid provision to Zambia may be considerably driven by donors' interests in maintaining their economic presence in the country.

After having analysed aggregate food aid provided (2002-2017 period) and discussed the relationships established between most food insecure countries and relative donors, food aid provided per capita needs to be taken into account (Table 3.13). The computation method corresponds to that applied in the analysis regarding relations between poorest countries and their donors.

Table 3.13. Aggregate development food aid received (million, US dollars) and food aid provision over total population (US dollars) related to selected recipients 2002-2017

RECIPIENTS	DONORS	AGGREGATE FOOD AID PROVIDED (MILLION, USD)	AV. FOOD AID PROVIDED YEARLY (MILLION, USD)	FOOD AID OVER POPULATION PER YEAR (USD)
<b>CENTRAL AFRICAN REPUBLIC</b>	JAPAN	26.35	1.61	0.37
	FRANCE	25.84	1.61	0.37
	USA	24.81	1.55	0.36
	OTHER	24.09	1.55	0.36
	<b>TOTAL</b>	<b>101.09</b>	<b>1.58</b>	<b>0.37</b>
<b>ZIMBABWE</b>	USA	116.91	7.31	0.46
	UK	107.93	6.75	0.50
	EU institutions	87.87	5.49	0.39
	OTHER	92.15	5.75	0.41
	<b>TOTAL</b>	<b>404.86</b>	<b>6.33</b>	<b>0.44</b>
<b>HAITI</b>	USA	450.15	28.13	2.92
	JAPAN	51.71	3.98	0.33
	EU institutions	41.30	2.58	0.25
	OTHER	77.88	4.87	0.49
	<b>TOTAL</b>	<b>621.04</b>	<b>9.89</b>	<b>1.00</b>
<b>ZAMBIA</b>	USA	74.22	4.53	0.36
	EU institutions	21.70	1.29	0.18
	UK	10.00	0.63	0.05
	OTHER	34.50	2.33	0.09
	<b>TOTAL</b>	<b>140.42</b>	<b>2.20</b>	<b>0.17</b>

Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)

From Table 3.13, it can be easily noticed that Haiti is characterised by the highest value of food aid per capita, that is \$1.00, significantly diverging from the other recipients analysed. Zambia, for example, presents the lowest value corresponding to \$0.17. In addition, it can be seen that food aid per capita is not positively related to food insecurity levels, for example CAR receives on average just \$0.36 in food aid per capita.

A further step to take into account can be analysing food aid over food insecure population in the selected recipients. Food insecurity levels are measured through prevalence of undernourishment (% of population) and the relative data are extracted from the World Bank database. In order to compute the ratio between development food aid and food insecure population, yearly average aid provision has been divided by the share of population severely food insecure and then the mean of these yearly ratios has been taken into account.

Table 3.14 Aggregate development food aid received (million, US dollars) and food aid provision over food insecure population (US dollars) related to selected recipients, 2002-2017

<b>RECIPIENTS</b>	<b>AGGREGATE FOOD AID RECEIVED (MILLION, USD)</b>	<b>AV. FOOD AID PROVIDED YEARLY (MILLION, USD)</b>	<b>FOOD AID OVER FOOD INSECURE POPULATION PER YEAR (USD)</b>
<b>CENTRAL AFRICAN REPUBLIC</b>	101.09	1.58	0.84
<b>ZIMBABWE</b>	404.86	6.33	1.01
<b>HAITI</b>	621.04	9.89	1.90
<b>ZAMBIA</b>	140.42	2.20	0.35

*Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)*

As Table 3.14 shows, Haiti results as the country with the highest level of food aid over food insecure population per year, amounting to \$1.90. It is then followed by Zimbabwe and by Central African Republic with values equal to \$1.01 and \$0.84, respectively. Thus, also in this case, it can be noticed that the ratio between development food aid and food insecure population is not very linked to aggregate food aid received and food insecurity levels.

After having investigated development food aid provision by donors to poorest and most food insecure recipients separately, it is now important to provide a complete analysis integrating all the previously discussed information. As Table 3.15 shows, countries are listed according to GNI per capita computed by the World Bank and both poverty and food security measures are taken into account. Concerning Burundi and the DRC, prevalence of undernourishment data are not available on the World Bank database.

Table 3.15. Average development food aid received (million, US dollars) and development food aid provision over total, extremely poor and food insecure population (US dollars) related to all the selected recipients, 2002-2017

<b>POOREST COUNTRIES' LIST (WB)</b>	<b>RECIPIENTS</b>	<b>AV. FOOD AID PROVIDED YEARLY (MILLION, USD)</b>	<b>FOOD AID OVER POPULATION PER YEAR (USD)</b>	<b>FOOD AID OVER POOR POPULATION PER YEAR (USD)</b>	<b>FOOD AID OVER FOOD INSECURE POPULATION (USD)</b>
1 <sup>st</sup>	CENTRAL AFRICAN REPUBLIC	1.58	0.36	0.56	0.84
1 <sup>st</sup>	BURUNDI	3.58	0.40	0.55	..
2 <sup>nd</sup>	CONGO, DEM. REP.	7.92	0.12	0.14	..
3 <sup>rd</sup>	NIGER	10.10	0.60	1.02	4.97
5 <sup>th</sup>	MALAWI	8.68	0.59	0.80	2.54
9 <sup>th</sup>	MADAGASCAR	7.43	0.35	0.47	1.01
15 <sup>th</sup>	HAITI	9.89	1.00	3.99	1.90
21 <sup>st</sup>	ZIMBABWE	6.33	0.44	2.09	1.01
39 <sup>th</sup>	ZAMBIA	2.20	0.17	0.27	0.35

Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)

From Table 3.15, it can be noticed that Haiti, Niger and Malawi (ranking 15<sup>th</sup>, 3<sup>rd</sup> and 5<sup>th</sup>, respectively) represent those countries receiving the most significant levels of food aid over population per year. Regarding food aid over extremely poor population, Haiti results once again as the country with the highest level amounting to \$3.99 by considerably diverging from the other donors. Its average value of poverty headcount ratio at \$1.90 a day corresponds to 25% (substantially lower than other previously analysed countries). Concerning food aid over food insecure population, instead, Niger (whose average PoU is equal to 13.24%) registers the greatest amount, that is \$4.97, and it is then followed by Malawi with \$2.54 (average PoU equal to 24.07%). It can also be seen that poorest countries like CAR, Burundi and the DRC, do not receive the most relevant levels of developmental food aid per capita or per poor person. For example, the DRC is always among those registering the lowest levels.

### 3.5. Poverty, food security and major food aid recipients

After having better understood the concepts of poverty and food security and having investigated their relation with food aid flows, it may be interesting now to apply the new knowledge acquired to the major development food aid recipients by aggregate level (i.e. Ethiopia, Bangladesh and Afghanistan). In the previous chapter, the aggregate amount of development food aid, the average value provided yearly and that provided per person have been analysed for these recipients, as shown in Table 3.16. The main points emerging from this table are that Bangladesh constitutes the country receiving the lowest level of development food aid over population (that is \$0.12) and that high levels of aggregate food aid provided are not automatically related to significant levels of food aid provided per capita, as witnessed by Bangladesh still.

Table 3.16. Aggregate development food aid received (million, US dollars) and development food aid provision over total population (US dollars) related to selected recipients, 2002-2017

RECIPIENTS	DONORS	AGGREGATE FOOD AID PROVIDED (MILLION, USD)	AV. FOOD AID PROVIDED YEARLY (MILLION, USD)	FOOD AID OVER POPULATION PER YEAR (USD)
<b>ETHIOPIA</b>	USA	1,012.84	63.30	0.72
	UK	457.72	28.61	0.33
	EU institutions	447.45	27.97	0.32
	OTHER	929.82	58.11	0.67
	<b>TOTAL</b>	<b>2,847.83</b>	<b>44.50</b>	<b>0.51</b>
<b>BANGLADESH</b>	USA	641.26	40.08	0.27
	EU institutions	232.38	14.52	0.10
	AUSTRALIA	132.25	8.27	0.06
	OTHER	128.36	8.02	0.05
	<b>TOTAL</b>	<b>1,134.25</b>	<b>17.72</b>	<b>0.12</b>

<b>AFGHANISTAN</b>	USA	391.37	27.96	0.97
	JAPAN	106.44	6.65	0.23
	EU institutions	101.25	6.33	0.22
	OTHER	193.17	12.07	0.42
	<b>TOTAL</b>	<b>792.23</b>	<b>12.38</b>	<b>0.46</b>

Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)

So, the next step to take is investigating the level of gross disbursements received by extremely poor and food insecure people in these recipient countries, which should be the real target of food assistance. As seen previously, the units of measurement of these two factors are: poverty headcount ratio at \$1.90 a day (2011 PPP, % of population) and the prevalence of undernourishment (% of population) and their relative data are extracted from the World Bank database. Development food aid over poor population and development food aid over food insecure population are computed by following the previously used methods. The first ratio could not be calculated for Afghanistan due to the lack of available data regarding poverty headcount ratio at \$1.90 a day. The average values of poverty headcount ratio at \$1.90 a day for Ethiopia and Bangladesh correspond to 32.67% and 20.03%, respectively, while those related to prevalence of undernourishment to 33.68% and 16.68%. Afghanistan's prevalence of undernourishment, instead, is equal to 29.18%.

Table 3.17. Aggregate development food aid received (million, US dollars) and development food aid provision over extremely poor and food insecure population (US dollars) related to selected recipients, 2002-2017

<b>RECIPIENTS</b>	<b>AGGREGATE FOOD AID RECEIVED (MILLION, USD)</b>	<b>AV. FOOD AID PROVIDED YEARLY (MILLION, USD)</b>	<b>FOOD AID OVER POOR POPULATION PER YEAR (USD)</b>	<b>FOOD AID OVER FOOD INSECURE POPULATION (USD)</b>
<b>ETHIOPIA</b>	2,847.83	44.50	1.57	1.52
<b>BANGLADESH</b>	1,134.25	17.72	0.58	0.71
<b>AFGHANISTAN</b>	792.23	12.38	..	1.74

Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)

As Table 3.17 shows, food aid per extremely poor and food insecure person are undoubtedly greater than that related to the total population. However, like the previous case, Bangladesh registers the lowest levels (that is \$0.58 and \$0.71 when referring to population suffering from extreme poverty and food insecurity, respectively), which significantly diverge from those of Ethiopia and Afghanistan. Furthermore, it can be noticed that Afghanistan's ratio between development food aid and food insecure population is the highest one despite the low level of aggregate development food aid received, accordingly this means that these two factors are the best related ones among the previously analysed recipients.



## Chapter 4. Poverty, food security and food aid

In the previous chapters, development food aid flows have been analysed according to total amount received and to poverty and food security levels. In order to provide a comparative analysis, it is now essential to combine all the obtained information. By starting from the recipient level, beneficiary countries can be classified as illustrated by the following table (Table 4.1). Next to them, their relative position in the WB poorest countries' list can be found and it is also important to notice that the recipients highlighted in bold are those analysed in the previous chapters.

Table 4.1. Recipients' classification resulting from previous analyses

POVERTY LEVEL		FOOD INSECURITY LEVEL		AGGREGATE AMOUNT OF FOOD AID RECEIVED	
<b>1<sup>st</sup></b>	<b>Central African Republic</b>	<b>1<sup>st</sup></b>	<b>Central African Republic</b>	<b>16<sup>th</sup></b>	<b>Ethiopia</b>
<b>1<sup>st</sup></b>	<b>Burundi</b>	<b>21<sup>st</sup></b>	<b>Zimbabwe</b>	<b>41<sup>st</sup></b>	<b>Bangladesh</b>
<b>2<sup>nd</sup></b>	<b>Congo, Dem. Rep.</b>	<b>15<sup>th</sup></b>	<b>Haiti</b>	<b>18<sup>th</sup></b>	<b>Afghanistan</b>
<b>3<sup>rd</sup></b>	<b>Niger</b>	<b>39<sup>th</sup></b>	<b>Zambia</b>	<b>3<sup>rd</sup></b>	Niger
<b>5<sup>th</sup></b>	<b>Malawi</b>	n.d.	North Korea	<b>15<sup>th</sup></b>	Haiti
<b>9<sup>th</sup></b>	<b>Madagascar</b>	<b>9<sup>th</sup></b>	Madagascar	<b>13<sup>th</sup></b>	Burkina Faso

Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)

One further step entails providing the relative specific data referring to food aid provision, that is the average value of food assistance provided yearly, food aid over total population in addition to food aid over poor and food insecure population. Recipient countries shown in the following table (Table 4.2) are those present in Table 4.1 as well and are listed according to their relative position in the poorest countries' list developed by the World Bank.

Table 4.2. Aggregate development food aid received (million, US dollars) and development food aid provision over total population, extremely poor and food insecure population (US dollars) related to all the selected recipients, 2002-2017

<b>POOREST COUNTRIES' LIST (WB)</b>	<b>RECIPIENTS</b>	<b>AV. FOOD AID (MLN, USD)</b>	<b>FOOD AID OVER POPULATION (USD)</b>	<b>FOOD AID OVER POOR POPULATION (USD)</b>	<b>FOOD AID OVER FOOD INSECURE POPULATION (USD)</b>
1 <sup>st</sup>	<b>CENTRAL AFRICAN REPUBLIC</b>	1.58	0.36	0.56	0.84
1 <sup>st</sup>	<b>BURUNDI</b>	3.58	0.40	0.55	..
2 <sup>nd</sup>	<b>CONGO, DEM. REP.</b>	7.92	0.12	0.14	..
3 <sup>rd</sup>	<b>NIGER</b>	10.10	0.60	1.02	4.97
5 <sup>th</sup>	<b>MALAWI</b>	8.68	0.59	0.80	2.54
9 <sup>th</sup>	<b>MADAGASCAR</b>	7.43	0.35	0.47	1.01
15 <sup>th</sup>	<b>HAITI</b>	9.89	1.00	3.99	1.90
16 <sup>th</sup>	<b>ETHIOPIA</b>	44.50	0.51	1.57	1.52
18 <sup>th</sup>	<b>AFGHANISTAN</b>	12.38	0.46	..	1.74
21 <sup>st</sup>	<b>ZIMBABWE</b>	6.33	0.44	2.09	1.01
39 <sup>th</sup>	<b>ZAMBIA</b>	2.20	0.17	0.27	0.35
41 <sup>st</sup>	<b>BANGLADESH</b>	17.72	0.12	0.58	0.71

Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)

By taking into consideration food aid over population, Haiti, Niger and Malawi are the countries registering the highest values, corresponding to \$1.00, \$0.60 and \$0.59 respectively. DRC, Bangladesh and Zambia, instead, receive the least amount of gross disbursements per capita (\$0.12 and \$0.17, respectively). It is interesting to notice that poorest countries like CAR, Burundi and DRC are not associated with the highest levels of food aid provision per capita.

The next step to implement is to analyse whether food aid flows are effectively targeted, that is provided to the poorest and most food insecure share of population in recipient countries. Concerning food aid over extremely poor population, Haiti is the country receiving the most significant levels of development food aid per poor person (that is \$3.99), by relevantly diverging from other countries. It is then followed by Zimbabwe

and Ethiopia which are getting, on average, \$2.09 and \$1.57 per poor person. Also in this case, the first countries on the list received substantially lower levels of development food aid during the 2002-2017 period, especially DRC which registered the lowest amount corresponding to \$0.14.

By taking into consideration development food aid over food insecure population, Niger replaced Haiti (ranking third in this case) and, therefore, it now ranks first by receiving \$4.97 per food insecure person. The amount of food aid provided to other recipient countries is significantly lower than that provided to Niger, for instance Malawi, taking the second place, got on average \$2.54 per food insecure person. CAR, which is the poorest and most food insecure country, should be associated with the highest level of development food aid over food insecure population but it just received \$0.84 yearly.

From the previous analysis, some focal points emerge. Firstly, high levels of average development food aid provided are not automatically related to high amounts of disbursements provided by taking into account both total population and that suffering from poverty and food insecurity. For example, Ethiopia, Bangladesh and Afghanistan, that are the major recipients by aggregate development food aid, do not represent the countries with the most significant food aid provision per capita. This means that other factors considerably affect the results and these range from population to poverty headcount ratio and prevalence of undernourishment.

Secondly, poorest recipient countries like CAR, Burundi and DRC do not register the highest levels of disbursements per capita in development food aid as it should be. It can be easily noticed that their levels are quite alarming, particularly those related to DRC which are, besides, the lowest ones among all the analysed countries. Haiti and Niger (which is a significantly poor country though) seem to be the most “favoured” recipients in terms of food aid provision at the individual level. However, it is important to underline that the amount of development food aid provided to these countries, still, is quite worrying.

After having focused on food aid at the recipient level, it is now important to shift toward the donor side. As discussed in the initial food aid donors' analysis, the most significant development food aid donors from 2002 to 2017 are represented by: the USA, the EU institutions, Japan and Germany. Moreover, it emerged that the levels of US food aid provision were considerably higher than those of the other donors, despite registering a decreasing trend over the selected period. Donors have been identified then in relation to the most significant recipients analysed according to some factors, such as poverty, food security and level of total food aid received. The following table (Table 4.3) summarises the main development food aid donors distinguished by: poorest, most food insecure recipients and major recipients by aggregate amount received. In addition, donors are listed in accordance with the total amount of development food aid provided during the 2002-2017 period.

Table 4.3. Summary table of development food aid donors

<b>POOREST RECIPIENTS</b>	<b>MOST FOOD INSECURE RECIPIENTS</b>	<b>MAJOR RECIPIENTS BY AGGREGATE FOOD AID RECEIVED</b>
USA	USA	USA
EU institutions	EU institutions	EU institutions
Germany	UK	UK
Japan	Japan	Australia
UK	France	Japan

*Source: own elaboration based on data from OECD.Stat (2019) and World Bank (2019)*

Table 4.3 shows that the USA and EU institutions constitute the main donors for all the recipients' categories, as well as being the top donors of global development food aid. The UK and Japan are also present among the key donors of the three categories, while Germany, France and Australia are associated with just one category.

As discussed in the previous chapters, bilateral relations between donors and recipients are of paramount importance, in order to deeply understand development food aid flows. Regardless of recipients' poverty and food security levels, most donor-recipient ties appear to be significantly affected by geopolitical and economic interests rather than being driven by development purposes. Natural resources, security and migration result

to be the most relevant elements shaping bilateral relations among countries, particularly in relation to Sub-Saharan countries.

Another way to study donors' food aid flows may entail the analysis of commodities delivered in case of in-kind food aid. The US, that is the largest food aid donor, still provides a significant amount of tied food aid, involving mostly commodities like wheat and vegetable oil, reaching a \$234 million and \$216 million value respectively, followed then by peas, sorghum and rice amounting to \$86.2, \$78.7 and \$78.4 million (Provost and Lawrence, 2012). Japan, which is the third largest development food aid donor, provides food aid mainly composed of rice and wheat, reaching \$88.6 million and \$21.9 million in 2010 (The Ministry of Foreign Affairs of Japan, 2012). On the other hand, the EU shifted toward the untied form of food aid by thus favouring vouchers, cash transfers and triangular and local purchases. However, as discussed in the section of donors' approaches, the EU followed a completely different food aid policy in the past, focusing essentially on surplus disposal and export subsidies (Harvey et al., 2010). As development food aid composition of the US and Japan may suggest, this kind of assistance represents an instrument to support domestic economy and firms, for instance commodities delivered by the US and Japan as food aid play a crucial role in their agricultural sector. In addition, the interests of US- and Japan-based multinational organisations are also significantly intertwined with food aid provision in both donor countries since they result as the main food aid contractors, for example the two US-based agribusiness giants Cargill and Archer Daniels Midland (mainly specialised in wheat and sorghum) have been involved in the US food aid scenario for decades. As discussed in the literature review, food aid flows, in particular the US ones, showed also a relevant connection with domestic levels of production and food prices (Dippold, 2016). For instance, food aid seemed to constitute a sort of escape valve when production levels were critical and food prices were decreasing. A significant example is provided by US rice during the 1997-2005 period.

These factors aim at pointing out the influence that donors may exert on food aid provision as well as the wide range of elements which may significantly drive it. So, it can be stated that food aid can easily be "biased".



## **Concluding remarks and proposals**

As previously argued in this dissertation, food aid constitutes a phenomenon which has been strongly criticised during its 70-year history especially because of the motives behind it and the impact on recipient economies (e.g. import displacement and reduction in domestic food prices). Food aid literature presents mixed evidence about its rationale and effects, however the lack of data and harmonisation of definitions and measurement seems to represent a common point.

By analysing global food aid flows during the 2002-2017 period, it results that emergency food aid constitutes the largest share of total food aid, by presenting a significantly positive trend. On the other hand, development food aid registers a quite steady trend over the analysed period. Food aid is mainly provided by the United States, the EU institutions, Japan and Canada, which are implementing very contrasting policies related to this matter. For instance, the EU institutions and Canada are shifting toward fully untied food aid while the US and Japan are still associated with in-kind food aid. At the multilateral level, the World Food Program represents instead a key food aid channel. Concerning recipients, it emerged from the analysis that food aid is mostly provided to the African continent (e.g. Ethiopia and Sudan) and in the specific case of developmental food aid to Ethiopia, Bangladesh and Afghanistan. Food aid flows towards these recipient countries appear to be substantially biased by economic and geopolitical interests tying them and their relative donors and these may range from trade and investment flows to migration and security.

In order to assess the effectiveness of food aid targeting, poverty and food security levels are essential to be discussed and analysed in relation to food aid provision (in particular developmental food aid one). Their measures are indeed necessary to provide a better cross-country comparison, by computing food aid over poor population and food aid over food insecure population for both poorest and most food insecure countries, as well as top recipients by aggregate development food aid received. Moreover, it emerged also that relationships between poorest and most food insecure countries and relative donors appear to be affected by drivers similar to those mentioned in the previous section.

The comparative analysis shows that levels of food aid provision are in general quite low in all the selected recipients and that significant levels of aggregate disbursements in food aid do not correspond to substantial food aid provided per capita. Also, it sheds light into the fact that poorest countries like Central African Republic and Burundi are not receiving critical levels of assistance compared with other countries like Haiti which seem more “advantaged”. Niger, the third poorest country, instead appears to be quite an exception, as a matter of fact it registers one of the highest levels of food aid provision by referring to food aid over population and food aid over food insecure population.

In light of the current food aid scenario and the relative policies implemented, some proposals may be suggested in order to provide the actual system with some improvements. However, it has to be acknowledged that significant changes were applied in recent years (e.g. the shift from Food Aid Convention to Food Assistance Convention) both at the international level and country level.

#### *Increasing untied food aid levels*

The most relevant action to be implemented is undoubtedly reducing the share of tied food aid, by encouraging untied forms of food aid like cash-based assistance and local and regional procurement for both bilateral and multilateral donors. As discussed in the literature section, tied food aid is usually associated with significantly negative impacts on recipient economies such as untimely responses to crises, changes in local diets and consumption and production patterns and for these reasons it needs to be reduced. Nevertheless, tied food aid may be crucial in certain emergency situations and, thus, some actions need to be taken in order to reduce its negative effects. One proposal could consist of creating emergency food reserves that can be used by multilateral non-profit agencies, like the World Food Program, when food crises occur. This would prevent donors from prioritising high-profile recipient countries.

#### *Supporting locally-led development programs*

Tied food aid leads also to recipients’ deprivation of the ability to autonomously align procurement to their development goals, it allows instead the interference of donor interests. Recipient countries should indeed be able to independently choose their development path and manage the policies to be implemented, as well as dealing with

investment and economic incentives. For instance, donor countries and multilateral non-profit organisations should engage more and more in supporting recipients' economic development and employment (for example, by providing agricultural technologies and assistance services in agricultural production) and in alleviating poverty and hunger, in order to encourage long-term food security and avoid aid dependence. One way of doing it is implementing local procurement promoting local production (by respecting, at the same time, local diets), equality and decent work in recipient countries and this needs to be supported also by other initiatives focusing, for example, on women's empowerment, health and education. Furthermore, local procurement systems should increase recipients' flexibility and support small local farmers at a greater extent. In order to achieve it, it is essential to eliminate the barriers hindering recipient countries' contract wins, which comprise, for example, unavailable information and risk-aversion tendency. At the same time, recipient governments should also commit to increase domestic procurement systems' effectiveness, in addition to making them more reliable and transparent.

#### *Improving harmonisation of food aid rules and cooperation at the global level*

Multilateral non-profit organisations need also to adopt some reforms regarding guidelines and control and enforcement mechanisms for food aid flows, as a matter of fact they are quite ineffective today. Multilateral food aid rules should also provide a support to put the monetisation process to an end and to shift toward untied food aid. These actions are possible only if multilateral agencies' food aid policies are harmonised and if a significant level of cooperation between them, and with donor countries, is achieved. Their collaboration could potentially encourage knowledge transfer and stimulate mutual learning between them and, accordingly, successful approaches implemented in one country might also be applied in another one. But, at the same time, these approaches should adapt to different contexts and, therefore, be aligned with recipients' development priorities. Cooperation between donors and recipients needs also to be promoted, as well as that at the donor level, for instance existing bottlenecks constraining donor-recipient dialogue, like the creation of new risk management plans, have to be removed. Furthermore, inclusivity should constitute a pillar of the food aid system, as a matter of fact recipient governments should be more involved in the food-aid-related decision-making process at the multilateral level.

### *Filling data gaps*

A significant flaw in the food aid system is also represented by the absence (or the lack of harmonisation, whether existing) of food aid data or those related to some recipient countries which may be useful for the implementation of food aid programs. Donor agents are engaging in disclosing more data nowadays, however their efforts still are not enough and forward-looking reporting, which may be of critical importance in evaluating financing gaps, matching financing with needs and avoiding overlapping situations, represents an arduous task today. In addition, a greater level of harmonisation concerning definitions and terms may be very meaningful, in order to realise this harmonised food aid evolution.

To sum up, future potential steps toward a more efficient food aid system need to be taken both at the donor and the recipient level. The most significant action is related to increasingly untying food aid, which will enable further positive results to be achieved, ranging from domestic production and sustainable development promotion to recipients' independence in establishing their development priorities. Donors need more to point assistance toward this direction and improve relations with recipient countries, as well as with other bilateral and multilateral donors. Future objectives of paramount importance consist of rising levels of international harmonisation in terms of food-aid-related definitions, data and guidelines as well. Meanwhile, recipient countries may also contribute to improve the process, by offering more trustworthy and transparent procurement systems.

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