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DIPLOMA THESIS

Common Agricultural Policy of the EU and agriculture in developing countries

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Declaration of Integrity

I declare that I have worked on this diploma thesis titled “Common Agricultural Policy of the EU and agriculture in developing countries” by myself and I have used only sources stated at the end of this thesis.

In Prague, 16.4.2013 Bc. Nikola Kirschová

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Common Agricultural Policy of the EU and agriculture developing countries

Společná zemědělská politika EU a zemědělství v rozvojových zemích

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ABSTRACT

Currently at least 70 % of the world's poorest people live in rural areas where agriculture forms the main economic activity therefore plays a vital role for local livelihoods. More than 80 % of rural households make their living with a small-scale farming. 925 million people worldwide still suffer from hunger. Numerous evidences have shown that investments in smallholder agriculture yield the best results in terms of poverty reduction and growth. The agricultural policies of industrialized countries can have a huge impact on trade and development opportunities of the developing countries (DCs) and therefore on the income of small farmers and the resilience of small rural communities. That means the coherence of the EU's agricultural and development policies is crucial. It is desired to pass from a simple international financial aid to the policy of supporting development.

This thesis attempts to examine an impact of the Common Agricultural Policy (CAP) of the EU countries on agriculture generally in developing countries and then in selected countries of South Asia (eight countries of the SAARC group – South Asia Association for Regional Cooperation). It also evaluates the used tools of the CAP and methods of monitoring its impact on developing countries (selected countries). The thesis brings at the end some suggestions for an improvement of the agriculture sector in those countries (through the CAP) and elimination of the CAP's negative impacts there.

There are identifiable effects of the CAP on developing countries that are likely to have an impact to their development. These effects are surely complex, not immediately obvious and vary over time. They need to be monitored therefore.

If those effects are monitored effectively, the results might help to develop new and more suitable policies for the future focused towards development in developing countries.

Key words: Common Agricultural Policy, European Union, Developing Countries, South Asia Association for Regional Cooperation (SAARC), Trade Preference

ABSTRAKT

V současné době žije téměř 70 % nejchudších světové populace ve venkovských oblastech, kde zemědělství tvoří hlavní hospodářskou činnost, a proto hraje důležitou roli při výdělku na živobytí. Přes 80 % venkovských domácností vlastní půdu malého rozsahu. 925 milionů lidí na celém světě stále trpí hladem. Četné důkazy prokázaly, že investice do drobného zemědělství přinesou nejlepší výsledky, pokud jde o snižování chudoby a rozvoj. Zemědělské politiky průmyslově vyspělých zemí mohou mít obrovský dopad na obchodní a rozvojové příležitosti v rozvojových zemích, a také na příjmy malých zemědělců a udržitelnost malých venkovských obcí. To znamená, že soudržnost zemědělské a rozvojové politiky EU je zásadní. A je zásadní, aby se EU zaměřila na podporu ekonomického rozvoje.

Záměr této práce je zkoumat vliv společné zemědělské politiky (SZP) zemí EU na zemědělství obecně v rozvojových zemích a ve vybraných zemích jižní Asie (osm zemí skupiny SAARC - Jihoasijské sdružení pro regionální spolupráci). Další záměr je zhodnotit použité nástroje SZP a metody sledování jejího dopadu na rozvojové země (vybrané země). Práce přináší na konci návrhy na zlepšení odvětví zemědělství v těchto zemích (prostřednictvím SZP) a vyvarování se negativního vlivu na životní prostředí.

Tato diplomová práce se zaměřuje na identifikaci prostředků SZP na rozvojové země, které by mohly mít dopad na jejich rozvoj. Tyto prostředky jsou velmi komplexní, nemusí být okamžitě zřejmé, a v průběhu času se mohou měnit. Proto musí být pravidelně sledovány. Pokud jsou tyto účinky sledovány efektivně, mohou výsledky a závěry sledování pomoci vyvinout nové a vhodnější politiky pro budoucnost zaměřené na rozvoj v rozvojových zemích.

Klíčová slova: Společná Zemědělská Politika, Evropská Unie, rozvojové země, Jihoasijské sdružení pro regionální spolupráci (SAARC), obchodní preference

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LIST OF ABREVATIONS

ACP	Africa, Caribbean and Pacific
AMA	Agricultural Market Access
ANC	Areas facing Natural Constraint
CAP	Common Agricultural Policy
CGE	Computable General Equilibrium
CIA	Central Intelligence Agency
DCs	Developing Countries
DDA	Doha Development Agenda
DEFRA	Department for Environment, Food and Rural Affairs
DG	Directrorates General
EBA	Everything But Arms
EC	European Commission
EP	European Parliament
EU	Eurpean Union
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GNI	Gross National Income

GSP	Generalized System of Preferences
JAP	Joint Action Plan
LDCs	Least Developed Countries
LFA	Less Favoured Areas
MW	Mega Watts
NAMA	Non-Agricultural Market Access
NPC	Nominal Protection Coefficient
OECD	Organisation for Economic Co-operation and Development
PCA	Partnership Cooperation Agreements
PBL	Netherlands Environmental Assessment Agency
PD	Domestic Price
PR	Reference Price
PSE	Producer Support Estimate
SAARC	South Asia Association for Regional Cooperation
SAFTA	South Asian Free Trade Zone
SAPTA	South Asia Preferential Trading Agreement
SFP	Single Farm Payment
SIA	Sustainability Impact Assessments
TRIPS	Trade-Related Aspects of Intellectual Property Rights
WB	World Bank
WTO	World Trade Organization

1. INTRODUCTION

This diploma thesis is a study of the impact of the Common Agricultural Policy (CAP) of the EU countries on the agriculture generally in developing countries and then in selected countries of South Asia (eight countries of the SAARC group – South Asia Association for Regional Cooperation – Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka). The region has been chosen to characterize the relationship between EU and South Asia in terms of agriculture and its related balance of trade. And to analyze the impact of agricultural policies created by EU countries on the countries in selected region.

Currently at least 70 % of the world's poorest people live in rural areas where agriculture forms the main economic activity therefore plays a vital role for local livelihoods. More than 80 % of rural households make their living with a small-scale farming. Approximately 85 % of farmers in developing countries produce on less than two hectares of land; a typical family of that extent group contains 5-6 members and either two cows, or a few goats or sheep. Currently 925 million people worldwide still suffer from hunger. SAARC countries are home to nearly 40 % of the World's poor. The relevance of the agricultural growth for poverty reduction is ample then. Numerous evidences have shown that investments in smallholder agriculture yield the best results in terms of poverty reduction and growth. This thesis emphasizes then a reorientation of CAP's objectives from the large-scale farming in Europe more to a small-scale one in rural areas worldwide.

The agricultural policies of industrialized countries can have a huge impact on trade and development opportunities of developing countries (DCs) and therefore on income of small farmers and the resilience of small rural communities. That means the coherence of the EU's agricultural and development policies is crucial. It is desired to pass from a simple international financial aid to the policy of supporting development.

The problem of monitoring the impacts of the CAP on developing countries is discussed in this thesis, too. It seems to be very important how we can monitor the effects of the CAP over time, if the monitoring is effective and useful in future. Nevertheless monitoring has been built on various model estimates so far. A prediction of how the CAP will affect developing countries in the period 2014-2020, is however disputable.

The CAP has been one of the priorities of the EU countries within last 50 years. Despite of being many times reformed in a more market-oriented direction in successive stages over the past 20 years, it continues to stay the EU's most controversial policy. Another reform comes just now. Whilst the future CAP should maintain and improve its production capacity, it should seek to do so whilst taking into account development cooperation objectives and not undermining developing countries' effort in achieving their goals. Question arises, too, if the CAP is a good instrument for achieving its main objectives of supporting and stabilizing rural income and protecting the environment; or if there is any better alternative.

2. OBJECTIVES

This thesis attempts to examine an impact of the Common Agricultural Policy (CAP) of the EU countries on agriculture generally in developing countries and then in selected countries of South Asia (eight countries of the SAARC group – South Asia Association for Regional Cooperation). It evaluates also the used tools of the CAP and methods of monitoring its impact on developing countries (selected countries). The thesis brings at the end some suggestions for an improvement of the agriculture sector in those countries (through the CAP) and elimination of the CAP's negative impacts there.

The objective is to determine the impact of CAP on agriculture in selected countries, which is examined by statistical method, which indicates if the hypothesis of this Diploma thesis should be approved or rejected. So another important goal is to prove or disprove the hypothesis, which is: **"The balance of agricultural trade between selected countries and EU depends on economic factors and producer support and is influenced by trade policies protection"**.

The balance of agricultural trade is calculated for each country and period as needed for calculation of the model.

The economic factors are in the thesis represented by - GDP per capita in agricultural sector (euro) and Employment in agricultural sector (%).

Producer support is represented by Producer Support Estimate (PSE) for agricultural products over time period of 9 years (1995 – 2003) calculated for India.

Trade policy protection is represented by Nominal Protection Coefficient (NPC) calculated for chosen commodity traded by all SAARC countries to Europe.

Aim of the thesis is to find out which indicators show the statistical significance on trade with the European Union.

Side objectives are:

- Characteristics of the Common Agricultural Policy of the EU (CAP), important for the development of agriculture in developing countries
- Impacts of the CAP on the agriculture in a selected developing countries
- Suggestions for an improvement of agriculture in a selected developing countries with EU supports

3. LITERATURE REVIEW

3.1. The Common Agricultural Policy of the EU

Agriculture has always been one of the flagship areas of the European collaboration since the early days of the European Community. In very early negotiations on the creation of a Common Market, especially France insisted on a system of agricultural subsidies as the condition for agreeing to free trade in industrial goods. So the Common Agricultural Policy (CAP) began operating in 1962, with the Community intervening to buy farm output when the market price fell below and agreed target level. It was originally agreed, too, as a form of protectionism designed to defend western European producers from cheaper products outside the EU. This helped to reduce Europe's reliance on imported food but led soon also to over-production and the creation of "mountains" and "lakes" of surplus food and drink. The Community also taxed imports, and from the 1970s onward, subsidized agricultural exports. From the very beginning, these policies have been damaging for foreign farmers and made Europe's food prices some of the highest in the world. European leaders were alarmed at the high cost of the CAP as early as 1967, but radical reforms began only in 1990s.The aim has been to break the link between subsidies and production, to diversify a rural economy and to respond to consumer's demands for safe food and high standards of animal welfare and environmental protection.

The CAP has, however, ever been one of the most controversial and very costly European Union policies. In 2010, the budget for direct farm payments (subsidies) and rural development (as the twin "pillars" of the CAP) was 56.8 billion euro. That was 45 % of the total EU budget (122.23 billion euro). The CAP expenditure was in 2010 divided to direct payments to farmers (69 % - 43 billion euro, pillar 1), rural development (23.5 %, pillar 2), market measures (7.2 %) and others (0.3 %). On average, pillar 1 payments provide nearly a half of farmers' income in the EU. Regional aid – known as "cohesion" funds – was the next biggest item in the EU budget, getting 36 billion euro. For 2011 the CAP budget was reduced by 3 % but it remains still

unacceptably high (Institute for the Study of Civil Society, 2010), despite of a steady falling as a proportion of the total EU budget in many years. In 1970, when food production was heavily subsidized, it accounted for 87 % of the EU's budget (70 % in 1980). Seventeen EU member states agreed in 2002 that spending on the agriculture (though not rural development) should be held steady in real terms within a period 2006-2013, despite the admission of 10 new members in 2004. For them, direct EU payments to farmers are being phased in gradually. The 2004's enlargement increased the EU's agricultural land by 40 % and added 7 million farmers to the existing 6 million. (European Commission, 2012)

The whole history of the CAP has been a history of reforms in fact. Several attempts have been made, with limited success in reducing its costs however. A brief review is as following:

1992 – Direct payments and "set-aside" introduced
1995 - Rural development aid phased in
2002 – Subsidy ceiling ("capping") fixed until 2013
2003 – Subsidies decoupled from production levels
2006 – Reform of sugar subsidies
2008 – CAP "health check" phase out land "set-aside" and milk quotas

The CAP's aims have now changed and instead it tries to protect agriculture throughout the EU by controlling prices and levels of production and by subsidizing the rural lifestyle in order to safeguard the countryside. It has been a cause of controversy not only because of its huge cost as a proportion of the EU budget, but also because it is seen as an unfair way of protecting European agriculture from overseas competition when farming contributes relatively little to EU's GDP (only 1.6 % in 2011).

The first attempt to reform came in 1992 with the MacSharry Reforms. It was created to limit rising production and reach more free agricultural market. These reforms reduced, for example, levels of support by 29 % for cereals and 15 % for beef.

They also created “set-aside” payments (by withdrawing selected land temporarily from a production) and payments to limit stocking levels. Since the MacSharry reforms cereal prices have been closer to the equilibrium level, there is greater transparency in costs of agricultural support and “decoupling” of the income support from production support has begun (Institute for the Study of Civil Society, 2013). Decoupling means the bundling of all production-linked payments into a single farm payment to be paid to farmers on the basis of their historic entitlements and linked to land rather than a production (University of Dublin, 2011). A further reform was brought forward in 2000 (Agenda 2000), however neither made a significant difference to the level of subsidies paid to farmers. EU Farm Ministers agreed to further changes on 26th June 2003, which were phased inside the period between 2005 and 2012. (Institute for the Study of Civil Society, 2013) Since 2005, farmers received a lump-sum called Single Farm Payment (SFP) and are encouraged to produce in response to consumer’s demands. Instead of payments being made to control how much farmers produce, they were paid for their role as guardians of countryside.

In May 2008 the EC conducted a major review of the CAP to try to make it more efficient. Its proposals included: reducing SFPs to large farms and increasing the amount of funds transferred to the Rural Development budget. Further proposals included subsidizing farmers who grow crops for more environmentally friendly bio fuels and abolishing the “set- aside” scheme, which paid farmers to leave a part of their land unfarmed to prevent over-production. Since April 2009, all recipients of SFPs are made public. (Westhoek et al, 2012)

The European Parliament (EP), European Commission (EC) and member states are currently negotiating the EU’s next long-term budget for 2014-2020, which also sets limits for expenditure within the Common Agriculture Policy. The European Commission published its CAP Regulatory proposals on 12th October 2011. In January 2013, the EP’s agriculture committee voted on amendments to the EC’s proposal on the reform of the agricultural policy. However, on 13th March 2013 the European

Parliament refused the first proposal of the long-term 2014-2020 budget. Regarding this reform, the issues to be tackled are: a fairer distribution of money between old and new member states, less red tape, and also how to stimulate greener farming, promote farming among young farmers, guarantee fair prices for farmers and best compete in the global market (Institute for the Study of Civil Society, 2013). The proposals (which are still in process of negotiation!) include:

- **Keeping EU farm spending** level until 2020, though it may be reduced by inflation. This will disappoint some countries, like the U.K. that wanted the CAP scaled back significantly.
- **Capping the total subsidy** – a large farm can receive up to 300.000 euro. This is to combat large payments going to rich landowners. Large agri-businesses and big landowners still receive more from the CAP than European small farmers who rely on a traditional methods and local markets. About 80 % of the farm aid goes to only about a quarter of all EU farmers – those with the largest holdings (for instance British Royal family and European aristocrats with big inherited estates).
- **Levelling imbalances in payments**. Subsidising the farmed area (acreage) rather than a production volume should lead to less intensive farming. Big disparities between high subsidies to farmers in the western part of EU, and much lower ones to those in the Eastern Europe, should also be levelled out.
- **Ending sugar production quotas**. These are seen as heavily disadvantaging competing farmers in poor countries. A reform of the EU sugar regime was adopted in 2006. The guaranteed price of sugar was cut by 36 %, following protests from developing countries seeking to export sugar to the EU (e.g. India and Brazil). The group's data for 2008 showed that sugar processing firms were among the top 10 recipients of the CAP subsidies, collecting more than 55 million euro each.

- **Taking 30 %** from the "direct payment" as support payments received by farmers dependent on environmental criteria (greening the CAP). To qualify, arable farmers would have to grow at least three different crops to promote biodiversity, to leave 7 % of their land fallow (unfarmed) to encourage wildlife and to maintain pasture land permanently, rather than ploughing it up.

However, the two-pillar system is likely to stay. Currently, direct payment and the price support (pillar 1) account for about 70 % of the CAP budget (69 % in 2010), while rural development (pillar 2) gets less than a quarter (23.5 % in 2010).

- The EU has decided to scrap the arable "set-aside" policy – a response to fresh concerns about food security. Farmers had been leaving some land fallow to prevent surpluses accumulating, but that land will now be put back into production. Conservationists are dismayed, saying set-aside has been very beneficial for a wildlife.
- The European Commission's CAP reform proposals include also a provision to designate Areas facing Natural Constraint (ANC). These would replace Less Favoured Areas (LFA). The new ANC is due to come into force in January 2014 (it may slip to early 2016). (DEFRA, 2012) ANC areas are based on biophysical criteria covering soil, slope and climate. These must be mapped in specified units to identify where an agreed proportion (currently 66 %) of utilizable agricultural land is naturally constrained. Member states may choose to use up to 5 % of their national direct payments ceiling to make area-based payments to farmers in ANC areas, or run an ANC scheme as part of their Rural Development Programme, with payments based on income foregone and additional costs.

Overall, farmers in the 15 oldest EU member states has so far benefited much more from the CAP than the newer members. (BBC News Online, 2011) Nationally France benefits most, with about 17 % of the CAP payments, followed by Spain (13 %),

Germany (12 %), Italy (10.6 %) and the U.K. (7 %). France is though the biggest agricultural producer with some 18 % of the EU's farm output. Germany comes the second with about 13.4 %, being a net contributor to the CAP budget now. France will be too in the near future. The average annual subsidy per farm has been about 12,200 euro in 2012. (European Commission, 2012) But payments per hectare range from 527 euro in Greece to just 89 euro in Latvia, because of the transitional arrangements for the new member states. They are allowed to pay a national farm aid to compensate for lower EU subsidies.

In the near past, some pre-reforms of the CAP were done, but only as the consequence of some urgent needs or collective protests of European farmers - for example in milk quotas agenda. Following a fall in milk prices at the end of 2009, EU farmers protested and the EU agreed to give 17.9 million euro to the diary industry in 2010 – 13. EU then agreed that milk quotas, which help protect diary farmers' income, would be phased out. To cushion the blow, the quotas are rising by 1 % a year, before they expire in 2015. Italy, which overshot its milk quotas, was allowed to implement the full quota increase from 2009. (Rotherham, 2009)

In international trade negotiations, the EU has offered to cut all export subsidies from 2013, as long as other countries reciprocate by lowering tariffs on industrial goods. But food subsidies are a major sticking point worldwide as farmers are powerful lobbyists in other countries, too, and no breakthrough was achieved in Doha Round global trade talks (Doha Development Agenda, 2011). The U.K., Denmark and the Netherlands are keen to channel more funds into rural development and cut the total CAP budget. But France, especially, emphasizes the importance of maintaining the pillar 1 payments. EU Agricultural Commissioner Dacian Ciolos said (Rotherham, 2009) that direct payments must continue to provide stable revenue for farmers and safeguard public goods in rural areas – goods such as biodiversity and leisure options that are not always rewarded by the market.

United Kingdom criticizes currently valid distortions in CAP's financing:

1. The U.K. has about as much farmland as Germany, but gets six tenths of CAP's grants.
2. The U.K. has about a seventh more farmland than Italy but gets a fifth of less money.
3. France gets the lion's share of the grants (18 % of the whole CAP budget).
4. Because of the nature of U.K. farming, the proportion of large landowners receiving large grants is, compared to the other countries, disproportionately high (second only to the Czech Republic) and this may impact upon equitable grant distribution.

3.2. Effects of the Common Agriculture Policy in Developing Countries

The impact of agricultural subsidies in developed countries upon farmers in developing countries and the further international development is well documented. Prevailing standpoints have nevertheless been more or less negative and the CAP has attracted a wide criticism, especially due to its subsidy policy. Agricultural subsidies depress world prices (export prices) and mean that unsubsidized (much less subsidized) farmers in developing countries cannot compete. (The University of Dublin, 2010) Export subsidies allow the EU to incidentally export excess produce at times when there is already an excess on the global market, thus causing further lowering of prices and harming producers in developing countries. The effects on poverty are particularly negative when subsidies are provided for crops that are also grown in developing countries, or since most depend almost entirely on only one or a few products, for example cotton, sugar and cereals. The IFPRI has estimated in 2003 that the impact of subsidies cost developing countries around 18.5 – 20 billion euro yearly in lost incomes going to agricultural and agro-industrial production; and more than 30 billion euro was displaced from net agricultural exports. (Panagariya, 2002) At the same time it is necessary to state that the Least Developed Countries (LDCs) have a higher proportion of GDP dependent on agriculture (around 30-35 % on average), and

over 925 million people who suffered from a hunger in 2010. (Mitackova, 2011) Half of them were small farmers. It means LDCs are even more vulnerable to the effects of subsidies. It has been argued that subsidized agriculture in the developed world is one of the greatest obstacles to economic growth in the developing world; which has an indirect impact on reducing the income available to invest in rural infrastructure such as health, safe water supplies and electricity for the rural poor (Borders et al, 2006). The total amount of subsidies that go towards agriculture in all OECD countries far exceeds the amount that countries provide in development aid (EU 27 - 92 billion euro in 2009). (te Valde, 2012)

Although proponents of the WTO have noted that export subsidies, by driving down the price of commodities, can provide cheap food for consumers in developing countries, too, critics argue that developed countries promote poverty in developing countries through massive subsidies. Agriculture is one of the few areas where DCs have a comparative advantage (wide basis, suitable farmland, favourable climate), but low crop prices encourage DCs to be dependent buyers of food from wealthy countries. So local farmers, instead of improving the agricultural and economic self-sufficiency of their home country, are forced out of the market and perhaps even off their land. This occurs as a result of a process known as “international dumping”. Its effects could sometimes be really devastating to farmers in developing countries, since most depend almost entirely on only one or a few products. One of major examples was published in 2009 and concerns U.S. subsidies to a cotton growing sector, which hit especially cotton producers in West and Central African countries. Another example is EU’s diary policy and its 2009 reform, which hit also some of SAARC’s member countries. Some 750 to 900 million people (12-14 % of the world population) rely on dairy farming to some extent; well milk and dairy are essential elements of the daily diet. So the development in diary sector can therefore serve as a powerful tool for reducing poverty in developing countries. Most milk is consumed in the countries where it is produced, and only around 6 % is traded across borders in the prevailing

form of butter, milk powder and cheese. Milk production has traditionally formed the core of the EU agriculture, comprising around 13 % of its total agricultural production. The EU's export surplus is small (around 5 % of all milk production), but it accounts for around one-third of total world exports. The EU is high cost producer of milk, South Asia (the same as Latin America and New Zealand) are low cost producers. Nevertheless the EU milk price is highly supported through export subsidies, high tariffs and intervention buying-in arrangements. Altogether it means that the EU market for dairy products is effectively closed to import from third countries, apart from limited volumes which enter EU under quota arrangements and preferential agreements. Furthermore, in late January 2009, the EC indicated its intent to further subsidise the export of key dairy products from the EU – as a response to the serious situation on the EU dairy market, caused by a recent sharp fall in producer prices. This may mean that the CAP further distorts developing world rural economies. (Sastry, 2009)

3.2.1. Impact of current CAP instruments on developing countries

Different policy instruments have different effects on different types of countries and products.

- **Import tariffs.** Most-favoured nation tariffs paid by countries without special arrangements with the EU are still high, even if current high world prices mean that applied tariffs on some commodities are now reduced or set to zero. Lower tariffs would help developing country exporters, who face such tariffs, but hurt those who already have tariff-free access. Lower import tariffs would increase EU's and world's demand for specific commodities which would damage developing country consumers dependent on food imports.
- **Coupled payments.** These are an addition to the price received for EU products and therefore encourage EU production. Reducing them would lead to

increased exports and therefore opportunities in many export-oriented developing countries.

- **Direct decoupled payments.** These are described as non-distorting, but there is evidence that, by supporting non-competitive farmers, they may induce farmers who would otherwise leave the sector to keep on producing. As payment is conditional on ensuring their land remains usable for farming, these payments help to retain more land in use for farming. Because direct payments increase EU supplies, any reduction in such payments would allow an increase in developing country exports and higher world prices, although it would rise costs for developing country importers of the CAP affected products.
- **Pillar II payments for rural development.** The economic effects of Pillar 2 payments have contradictory effects on output and thus on DCs. Investment-type measures, such as farm modernization and improvement in infrastructure, increase EU supply, as do payments that support farming activity in marginal areas, again with different impacts on producers and consumers in DCs. Payments for agro-environment measures are often linked to input restrictions and thus reduce agricultural supply, as do payments to encourage farmers to make alternative use of their land, such as for forestation or renewable energy. If pillar 2 spending reduces greenhouse gas emissions, this would benefit developing countries.
- **Export subsidies.** The EU paid farmers 1 billion euro in export subsidies in 2008 and 650 million euro in 2009 (te Valde, 2012), with further decreases thereafter. Products, receiving subsidies, include dairy products, pork and poultry. Because export subsidies support EU supply, some developing country consumers would lose from a reduction in export subsidies via a rise in the import price, but producers and exporters, whose products EU exports have displaced, would gain.
- **Intervention price.** Public intervention at fixed prices remain available in principle for cereals, beef, veal, butter and milk powder, but only for quantities

fixed in advance or at very low prices. Since 2009/10, no cereals, apart from soft wheat, have been eligible for automatic buying-in for intervention. There are unlikely to be major effects in the future on the rest of the world.

The proposed new Reform of the Common Agricultural Policy will have little environmental impact in developing countries, too. This is the conclusion by the PBL Netherlands Environmental Assessment Agency. Opportunities for the reform to have a positive effect on sustainable rural development in these countries are not being utilized. The effects appear to be of little significance, for example:

- A change in EU market conditions induced by the CAP reform could have an effect on global markets, which in turn could induce developing countries to change their own agricultural systems, with either positive or negative environmental effects. Model projections, however, suggest that the proposed reform will have very little impact on global markets
- Although the proposal does offer more opportunities to fund innovations to improve production methods, research that includes parties from DCs is not envisaged.
- Some of proposed measures are targeted at a reduction in greenhouse gas emissions from EU agriculture. Fewer emissions would slow down climate change to the benefit of many developing countries. However, calculations show that the effect of these CAP measures is negligible. (van den Berg, 2012)

3.3. The Doha Round – Winners and Losers

Under former policies, a tariff has been placed on cheap agricultural produce from DCs, in order to make it less competitive on EU's markets. At the same time surplus EU's production was exported back to DCs, with subsidies underwriting high costs. Aid programmes are then put in place to help these countries to deal with the effects of that trade imbalance. In this way, trade is replaced with aid, to the detriment of developing world economies.

The Doha Round of world trade negotiations, named the Doha Development Agenda (DDA), was launched in Doha (Qatar) in November 2001. It is targeted at further liberalizing a trade, whilst facilitating the integration of developing countries, particularly LDCs, into the WTO multilateral system. The main issues at stake have been:

- Reforming agricultural subsidies
- Ensuring that new liberalization in the global economy respects the need for sustainable economic growth in developing countries
- Improving developing countries' access to global markets for their exports

The EU's objectives for the entire Doha Round are:

- create significant new trade flows by lowering tariffs on industrial goods in both developed countries and growing emerging economies (China, Brazil and India), in exchange for the free access of developing countries to EU's agricultural market
- improve the WTO rulebook on subsidies distorting the production of industrial goods
- reform farm subsidy programs throughout the rich world in line with the EU's wide-capping 2003 reform of the CAP (EU – a major world trader in agricultural goods)
- liberalizing the trade services, creating new market access opportunities for business as well as tangible benefits to consumers worldwide
- agree a package of development measures including the extension of unlimited market access to all LDCs by as many countries as possible (aid for trade)
- agree a new set of rules to govern the use of trade defence instruments and a complete update of the WTO's rulebook for trade facilitation

Nevertheless those aims have shown to be too ambitious to be reached easily and in a short period of time. The entire Doha Round is significantly delayed, just due to

disagreements on farm subsidies under the EU's CAP. The regular WTO Ministerial Conference in Geneva in December 2008 even broke down over a disagreement between exporters of agricultural bulk commodities and countries with large numbers of the poorest farmers on precise terms of a special safeguard measures to protect them from "high waves" in imports. A hesitation and impasse in the Doha Round, following the collapse of the 2008 Geneva meeting, has created much frustration even amongst long-standing supporters of the Round. Several academics and opinion makers have argued that Doha Round is dead. (Isamil, 2012)

The EU has a deep interest in a strong and well-functioning multilateral trading system underpinning open markets and respect of trade rules. It has played active and constructive role in the DDA negotiations, including by developing a solid compromise proposal in the key area of tariffs on industrial goods, and by consistently calling for deliverables to address specific challenges faced by LDCs. The EU is determined to work with its WTO partners to bring Doha Round out from the recent stalemate towards a successful conclusion. (Matthews, 2011)

The new study, commissioned by the EC and carried out by CEPII, a well-known Paris-based research institute, uses a state-of the art CGE model (computable general equilibrium) and the latest negotiating texts. (European Commission, 2012) It is based on new data for the world economy, which includes the impact of the financial and economic crisis in late 2000s. It is also one of the few studies which include a simulation of the DDA agreement with sectoral liberalization of industrial goods as well as environmental goods. In terms of capturing the benefits of the Doha Round, numerous studies previously tried to quantify its effects, but few really managed to grasp the complexity of proposals at the most detailed level and the uncertainty about how WTO members would use the flexibilities included in the draft agreement. (Matthews, 2011)

The study shows then that the economic benefits, arising from the Doha Development Agenda negotiations under WTO gesture, amount to an increase of world export of about 275 billion euro on an annual basis from a deal on the liberalization of industrial goods, agriculture, services and on the removal of the "red tape". That removal means introduction of so-called Trade Facilitation (e.g. increasing transparency, simplification of customs procedures, transport and trade logistics), being of a major importance for a successful Doha Development deal. Almost half of the global gains (77 billion euro in world exports) are to be reaped from this part of the agreement. In addition, the allocation of gains becomes more favourable to developing countries, when Trade Facilitation is included. The EU's focus in 2013 is to achieve an ambitious agreement on Trade Facilitation as a first step toward the conclusion of the Doha Round. Such an agreement would aim at making importing and exporting more efficient and less costly. Economically, reducing global trade costs by 1 % would increase world-wide Gross National Income by more than 30 billion euro, 65 % of which would accrue to developing countries. Gain from the Trade Facilitation agreement would be distributed among all countries and regions (0.2 % of additional economic growth at global level), with the biggest benefits being accrued to developing landlocked countries. A successful Doha Agreement would not negatively affect wages of EU workers; wages for both skilled and unskilled labour would even increase by around 0.3 %. If an agreement on sectoral liberalization of industrial goods (chemicals, machinery, and electronics) could be reached, world exports would increase by a further 112 billion euro annually (with yet another 6.2 billion euro if environmental goods are included). Contrary to a common perception, an Agreement would also lead to positive effects on tariff revenues for some regions, one of which is mainly Sub-Saharan Africa. In this case the "red tape" would make trade volumes go up even when tariffs are kept at the same level. Higher trade volumes result in increased tariff revenue. (The Doha Development Agenda, 2011)

A successful completion of the DDA would even lead to gains beyond those modelled in the study. The DDA has systemic value in preventing excessive tariff hikes. Lower tariff bounds have an additional value in curbing protectionism. Concluding the Doha Round reinforces fundamentally the global and transparent set of rules, which is going to make every subsequent recession less painful.

The 9th Ministerial Conference of the Doha Round will be held in Bali, Indonesia, in December 2013. According to optimists there is a real chance to conclude the Doha Round.

Though, so far results of the Doha Round negotiations and modelling of its impacts recall strong negative reactions among opponents. They say there is still a little evidence that the same countries supporting it are ready to reach agreement on a common approach to the next steps to rescue Doha Round. Also latest EU's proposals (the three-scenario strategy: goods-and-services, trade facilitation, welfare gains) have met with a frosty reception so far -particularly from the emerging economies like India. The major findings of a recent research suggest that the agricultural liberalization under the Doha Round would have very little effect on Indian GDP. The welfare effects are positive but stronger in the long run. Poverty falls for all household categories both in the short and long run (Raihan et al, 2010)

Some commentators suppose much lower estimated gains from the further conventional trade liberalization by arguing that the modelling used misses out on important channels whereby trade can positively impact on economic growth and welfare (for example by encouraging faster rates of productivity growth). It is also evident the losses to the global economy would be substantially higher if a failure to agree on further liberalization actually led to backsliding on previous commitments and to the growth of trade protectionism (the bicycle theory of trade liberalization). Nonetheless, the relatively modest gains to be achieved from the further conventional trade liberalization (due to a previous success of the GATT and WTO in reducing

particularly non-agricultural tariffs) may help to explain the reluctance of governments to make the final political push for an agreement. These difficulties are compounded by the asymmetric distribution of the gains, with some regions actually losing out from further conventional trade liberalization. In euro terms, the main beneficiaries of the liberalization are China and the EU. The EU and China reap each 22 % of world GDP long-term gains from a goods-and-services scenario. U.S. gains are less spectacular (7 % of world gains), compared to its relative size in the world economy. India gains 4.6 % (Matthews, 2010). Three regions suffer small losses: the Caribbean, Mexico and the Sub-Saharan countries. However Caribbean and Sub-Saharan Africa reap gains from the trade facilitation (2nd scenario). In welfare terms, a number of developing country regions (Caribbean, North Africa and Sub-Saharan Africa) suffer from goods-and-service scenario losses. This reflects the effects of Preference Erosion (all three regions benefit at present from significant preferential access to the markets of the U.S.A. and the EU). However, in terms of overall agricultural value added, China and India are hardly affected because the largest drop in value added is projected in the sugar sector (-12.9 %). Australia and New Zealand benefit the most from increased exports (+6.9 %), while EFTA countries face the strongest reduction for agriculture value added (-18.7 %) and must reorient their resources toward the other sectors. So the continuing reform of the EU's agricultural policy removed some of the worst excesses of past protectionism, including reforms undertaken since the Doha Round was launched. But they are interpreted by developing countries as justifying their criticism that the current modalities do not offer much in the way of agricultural benefits in return for the concessions they are being asked to agree and make in NAMA and services. (Matthews, 2010)

3.4. Monitoring the Effects of the Common Agricultural Policy in Developing Countries

The broad channels whereby EU agricultural and food regulations affects developing countries are well known. However, evaluating the quantitative importance of these

effects requires sophisticated economic modelling. Such modelling can help to identify which aspects of the CAP have the biggest impacts on developing countries, if its effects are more important for some commodities than for others and which countries would be most affected by the further reforms. The impact of the EU agricultural protection on DCs explores the empirical evidence on what CAP policy reform would mean for world market prices, production, trade and developing country welfare.

Three major concerns from a development perspective should be addressed in negotiations on post 2013 CAP regulations (te Valde, 2012):

- there is a need for empirical research on the significant positive and negative impacts of the CAP and associated policies in developing countries. As Annex 12 of the Impact Assessment prepared for the current reform shows, not investing in such research leads to unsatisfactory analysis and constraints opportunities to generate a strong evidence base for decision making
- in order to do this, there is a need to monitor impacts on developing countries systematically to analyze development effects; no one is currently doing this
- as global conditions change, we need to reappraise how best to achieve stated objectives and assess whether current CAP instruments are most effective, as well as whether they are development friendly

Institutional options for monitoring the effects are presented by Keijzer and King. Irrespective of the institutional approach taken to monitoring the external effects of the CAP, a range of methodological choices must be made and conceptual challenges overcome in designing any monitoring mechanism. The challenge can be described as the need to:

- identify the appropriate monitoring methodology/methodologies
- define and verify casual chains between EU policy and development outcome

While there are significant complexities underlying each of these tasks, in many respects each can be overcome once the political will to carry out the exercise is present and the best institutional approach for the exercise has been identified. Four potential approaches, where precedents exist and could form either the entire monitoring exercise or just one part of a multi-methodological approach, are outlined:

1. **A series of indicators,** focused specifically on the external effects of the CAP. Once agreed, and assuming they are scientifically based and verifiably relevant, indicators can be updated on a regular basis and results easily communicated. There are three recent examples that fall into this category – the Swedish Coherence Barometer (2008), Ireland's Policy Coherence Indicators Study (2012) and the annual Commitment to Development Index from the Centre for Global Development (CGD)
2. **Case studies,** using a combination of qualitative and quantitative methods. They have been used in the past to highlight unintended externalities of the CAP in developing countries. Non-Governmental Organisations case studies have pointed to the alleged impacts of EU exports of particular commodities, the production and/or exports of which were subsidized through the CAP (milk powder, pork meat, poultry meat) in particular countries. The inherent challenge within case studies is the absence of a counterfactual – for example if the EU stopped exporting a particular agricultural product, other exporting countries could react and respond to the same demand instead. The body of empirical evidence on the effects of the CAP in developing countries is relatively limited.
3. **Quantitative economic modelling,** often involving computable general equilibrium (CGE) models that can predict dynamic reactions to EU policy changes and establish a counterfactual. Other EU Directorates-General (DGs) have employed sophisticated modelling techniques to estimate impacts of EU policies on developing countries. DG Trade has systematically used modelling

to assess the impact of the EU trade agreements by developing trade sustainability impact assessments (SIAs). In relation to agricultural policy, external model simulations of previous CAP regimes have confirmed that the CAP has distorted both the level and the volatility of world market prices to the detriment of farmers in developing countries, even if consumers and net importing developing countries could have reaped some benefits from lower world market prices.

4. **Expert panels,** of which considered conclusions can bring the desired evidence. Such evidence can include indicators, case studies and modelling. The intergovernmental panel on climate changes is an example of an expert panel that has helped achieve consensus on a contentious issue and helped made some policy progress (e.g. the Kyoto Protocol in 1997 and the Durban Platform in 2011). A civil society example of this approach can be seen in the Copenhagen Consensus on Development, which ranks impact per dollar invested of a range of development interventions (Kejzer, 2012)

For effective monitoring of the external effects of the CAP, it is advisable that a mixture of methods is to be employed. Policy indicators tend to be most widely used for monitoring, whereas case studies or quantitative modelling might be considered more relevant for evaluation. However, for the purposes of monitoring the external effects of the CAP, the borderlines between monitoring and evaluation are not strong, and all four methodologies can be considered relevant.

3.5. The EU's Generalized Scheme of Preferences

The European Union was the first to implement a GSP scheme in 1971. It is implemented for following a cycle of 10 years. The present cycle, which lasts from 2006 to 2015, was adopted in 2004. GSP helps to developing countries (DCs) by making it easier for them to export their products to the EU. This is done in a form of reduced tariffs for their goods when entering the EU market. The GSP is however a specific instrument focusing on a single dimension only: preferences for a trade in goods; it

does not tackle other problems faced by DCs. Traditionally, it has been admitted that the group of Least Developed Countries (LDCs) should receive more favourable treatment than other developing countries. Gradually, EU's market access for products from these countries has been fully liberalized. In February 2001 the European Council (EC) adopted Everything but Arms (EBA) Regulation, granting duty-free access to imports of all products from LDCs, except arms and ammunition, without any quantitative restrictions (excluding of bananas, sugar and rice for a limited period). EBA Regulation has been granted to 49 countries till February 2013, selected from existing beneficiaries of the GSP scheme, among them five of eight SAARC member countries (Afghanistan, Bangladesh, Bhutan, Maldives and Nepal). India, Pakistan and Sri Lanka are not classified as LDCs and has been among 176 countries granted originally with the GSP scheme. GSP brought in general:

- Duty reductions for ca 66 % of all tariff lines for beneficiaries in general – 111 countries enjoy these reductions, and in 2011 it concerned exported products worth 72.5 billion Euro thanks to preferences (i.e. 83 % of all imports benefiting from GSP)
- Zero duties for essentially the same 66 % tariff lines for countries which implement 27 international conventions on core human rights, labour rights, environment and principles of good governance ("GSP+" scheme). There are 16 beneficiaries which exported goods for 4 billion euro in 2011 thanks to these preferences (5 % of all GSP preferences). The only GSP+ beneficiary is currently Sri Lanka among all SAARC countries (since 2005), although its continuation is under review now. (Mashayekhi et al, 2011)
- Full duty free, quota free access for all products except arms (EBA, mentioned above). Its 49 beneficiaries exported products worth 10.5 billion euro in 2011 (12 % of all GSP preferences).

3.5.1. The new generalized Scheme of Preferences.

The reason to change and update GSP scheme has been the signing of Lisbon Treaty. The new GSP focuses preferences exclusively on those countries that really need them. The number of beneficiaries has been reduced from today's 176 to 89. Reduction concerns countries with the other preferential channels to enter the EU: (European Commission, 2013)

- 33 overseas countries and territories, for which the use of GSP is marginal (for example New Zealand, Australia and U.S.A.). It is expected that the reform will be neutral to them.
- 34 countries with Free Trade Agreement or the other preferential market access arrangement (does not concern SAARC members).
- Some DCs still have a low per capita income but have extremely successful export sectors for many items. These items (e.g. textiles, chemicals, leather products), competitive enough worldwide at the highest level, do not need preferences to successfully penetrate world markets. Therefore GSP scheme withdraws preferences to such items on the basis of "graduation" mechanisms. Graduation applies when the average imports of a section from a country exceed 17.5 % (15 % before) of GSP imports of the same product from all GSP beneficiary countries during three years (14.5 % for textiles and clothing now). Product sections used for graduation are expanded from 21 to 32. Graduation no longer applies to GSP+ countries.

"Graduation" of competitive sectors. The new GSP incorporates a wider expansion in products and preference margins (as not limited anymore), 15 new tariff lines are added to GSP as "non-sensitive" (duty-free access); 4 tariff lines under GSP which were sensitive, turn to non-sensitive (duty-free access); 4 new tariff lines are added to GSP+ (duty-free access).

In fact, product coverage under GSP is already very high: 66 % of tariff lines. If we add 25 % of other lines what are already at 0 % normal duty, only 8 % tariff lines (mostly agriculture products) are today outside GSP. (European Commission, 2013)

"Graduated" sectors suspension concerns only India among all SAARC countries – items like mineral products, inorganic, organic and other chemicals, raw hides, skins and leather, textiles, motor vehicles, bicycles, aircraft, ships and boats (Regulation EU No. 1213/2012 from 17th December 2012).

3.6. The CAP Reform and the value of trade preferences

Some agricultural tariffs are very high in the EU till now (for example roughly 100 % for beef and dairy products). However, many developing countries can export under preferential regimes, with lower or even zero tariffs. Those preferences are uneven across countries, but the LDCs, as well as African, Caribbean and Pacific countries (ACP) benefit from very generous preferences, which are a significant source of income, since the beneficiary countries can sell their products in the EU at a much higher price than the world one is.

Nevertheless if tariffs are further reduced and reduced tariffs are still widened, the value of these preferences will also be reduced (so called "preference erosion"). For example (Institute for the Study of Civil Society, 2013), the average tariff faced by U.S. exports of beverages and tobacco to the EU is presently 23.5 %, while the tariff faced by African exports is only 2.2 %. One suggested structure of tariff reductions in the Doha Round would mean a little change for Africa, while the tariffs faced by U.S. exports would fall to 7.7 %. The preference margin for Africa would only be 6.7 % instead of 21.3 % then. As a result, African countries would face much greater competition on the EU market from more efficient producers such as the U.S. and Argentina.

The erosion of preferences, whether due to multilateral tariff reductions or unilateral reform of the CAP (e.g. reform of the sugar sector), will result in significant

losses for Least Developed Countries and many other nations in Africa, Caribbean and Pacific (ACP). Some studies suggest that ACP countries could lose more than 1.5 billion euro due to preference erosion and that the benefits of the "Everything but Arms" initiative for LDCs would be greatly diminished. Other studies are less pessimistic, suggesting that the aggregate losses will be small and only significant for a small number of countries. (Panagaryia, 2002)

This issue is particularly relevant for tropical products. Take the example of bananas, which symbolize the trade liberalization demands of many Latin American countries. The opening up of export markets for Latin American bananas threatens to erode the preferences awarded by the EU to ACP countries.

3.6.1. Preference Erosion in the Doha Round

A key issue, especially for developing countries, is whether multilateral tariff reductions agreed under the Doha Development Round (DDA) will adversely affect their market access to developed countries. Like previous trade rounds, a significant objective of the negotiations is to reduce trade barriers and open up new market opportunities for WTO members. However, unlike previous rounds, concern about the erosion of non-reciprocal preferences has found clear expression in the principal negotiating texts. (University of Dublin, 2010) On preference erosion, the EU supports the LDC's request for longer implementation period for tariff reduction on products of key LDC interest in the major markets like the EU and the U.S. The Doha draft modalities recognize long-standing preferences and undertake to provide targeted technical assistance to promote the diversification of existing production in the territories of preference receiving Member. It is still undecided in the modalities whether preference erosion products will be exempt from tariff cuts for 10 years or whether tariff cuts will be implemented in annual instalments over a period that is two years longer than the implementation period for developing country Members for tariff cuts. (Institute for the Study of Civil Society, 2013)

3.7. South Asia – the chosen region

- Afghanistan
- Bangladesh
- Bhutan
- India
- Maldives
- Nepal
- Pakistan
- Sri Lanka

South Asia according to World Bank comprises of 8 countries, Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. In this thesis we would be focused on the region as a whole, but statistical data needed for computation of the model will be taken for each country separately. (World Bank, 2011)

More than 70 percent of the region's population (approximately 1,4 billion people) lives in rural area and agriculture creates a significant part of GDP. The population density in the region is high comparing to the rest of developing world, due to the limited area.

Landscape in the region is very diverse. Hills and mountains cover 20 percent of the region. Himalayan range lies across 5 of the 8 countries. Most densely populated are, of course, the humid and moist lowlands where more than 40 percent of population live. Fresh water resources are quite scarce. The humid and moist areas benefit greatly from seasonal monsoon rains. "Throughout the region, there are about 74 million ha of forest (14 percent of total land area), 49 million ha of grazing land and about 213 million ha of cultivated land and permanent crops - equivalent to less than 0.16 ha of agricultural land per capita.

The best economic situation in the region is represented by Sri Lanka and Maldives, which are the only two countries, put in the middle income group. Most probably due to the attractiveness for tourists. On the other hand almost 300 million people are undernourished, the situation should get better due to the Millennium Development Goals programme. In India, for example, live approximately 45 percent of people on less than one dollar a day and 85 percent on less than 2 dollars a day

The population is expected to reach 1,7 billion inhabitants in 2015. Number of people living in urban areas is increasing and estimated to reach 50 percent in 2030. As young man migrate in great numbers seasonally, their acquired knowledge is very useful in their rural homes. New agricultural methods, mechanisation, more extensive and low labour methods are introduced. As men leave their homes to travel and find jobs, women are becoming the heads of households and all farm responsibilities lie in their hands.

Half of the land area of South Asia is cultivated. In the highlands soil erosion is a major problem. Heavy rains are followed by floods and soil degradation caused by bad soil management is problematical in rice growing areas. Using of unsuitable fertilizers is a problem throughout the whole developing world; such management can cause ill health in particular areas. Agricultural development in the area is slow due to the fact that many national projects are focused on urban areas, where the investments are very likely to return**.**

But the solution to eradication of poverty lies in investing to the agricultural sector, because the great majority of poor people live in rural areas, where agriculture is the main source of living. The lack of road infrastructure, insufficient condition of existing roads is some of the main problems. As well as problematic accessibility to education and health care. People need to be educated, illiteracy retains still high in the region, farmers need to be thought to be raise efficiency and productivity of their farms. The managing farmers need to be educated in intensive farming practices, so

the production grows to the level, when they are feeding their families but selling on the market as well. Sustainable access to information for majority of rural farmers is the important goal to be reached. Flow of information among farmers is very important as well, it may be the cheapest way to get to know new technologies market prices and other valuable information. Mobile phones or radio transmitters may be very helpful, but some areas are still without any connection to electricity.

Farmers depend on sources of water, therefore the distribution of farms and farm land is affected by water scarcity in the region. Better water management is needed, only a half of the agricultural land is irrigated, luckily some sort of financial support brings progress in the region and new sustainable environmentally friendly irrigation system is slowly being built. Forest areas are another source of irrigated land, therefore they are under great danger of deforestation. High population density increases the pressure especially in highlands..

The main crops grown commercially in this area are rice, wheat, millet and sorghum. As time goes the competition on world market is getting harder and harder. Farmers are forced to lower the prices of cereals as the terms of trade tend to decline. Fruits, nuts and spices are another products being exported to other countries. As Asian cuisine is beginning to be very popular all around the world, it is a great opportunity for the region to build their markets on exporting such products in large scales. And the fact that many South Asians live abroad in the western world and their demand is influencing the offer in local shops, it is obvious that there will be a constant demand guaranteed.

On the other hand when talking about import to the region, rural areas do not offer very attractive markets. But the urban settings are growing really fast as people move to find jobs abroad or in cities. Commercial and intensive agriculture is needed to feed all these people who are never more self-sufficient as small farmers in rural

areas. High demand for imported goods in the cities. People are now used to buy all western goods in the urbanised areas all around the region. (Dixon, 2001)

Development issues solution is the main goal in the region. World Bank focus is directed towards nutrition, health women and education.

Some regions are better off than the others, the main focus should be placed to places where the poorest people live, and those regions can be found mainly in the biggest countries such as India and Pakistan. The differences are obvious, the income levels can vary thousand times, that is something we could not imagine in the developed world, we are living in.

Money is not in the traditional agricultural sector, bud as in developed world money fluctuate in the services and manufacturing sector. So new jobs are created, but it brings no help to local poor farmers. If they have access to information and they want to live a “better“ live, they move to the cities, but they start working as waiters, shop assistants or factory workers and the agricultural sectors lies forgotten. Just to remind, there live 1,4 billion people in the region, so the working force is enormous, even though women are usually not employed at all and great number of people move abroad. New jobs are needed, the population is growing fast in spite of the fact that access to health services is complicated or absent in several regions. The influence of western world is obvious mainly in cities; nowadays it is usual even for women to work and for people to buy everything in supermarkets and foreign chain stores.

South Asia is represented by the lack of integration. Movement of people is very intensive. Cooperation between regions can bring success, but is a long way to go. Income inequality is very high, which we have already mentioned. People in the rich regions (mainly cities and urbanised areas) earn, in some cases, thousand times more than poor farmers. Those differences should be reduced and some kind of regional

cooperation, fair investments and support may be the way to success. (World Bank, 2011)

3.7.1. Agriculture in South Asia

When talking about agriculture in the region, so called Green Revolution should be mentioned. The revolution started sometimes in the 1960s by introducing high yielding varieties of crops (rice and wheat). This headed towards increases in total production, but problems arise in the same time. Biodiversity degradation, water management shortages and other. (Briggs, 2009)

The Green Revolution came in number of phases; great results came in the 1970s and 1980s. Rural poverty and food insecurity were reduced significantly. But still majority of people live in rural areas and stay under the poverty line. Those people are directly dependent on the Mother Nature. Heavy rains are sometime the only sources of water, forests offer sources of wood and other materials and agriculture is the only job available. Although Green Revolution brought success by reducing number of poor and increasing food security, but still more than ¾ of the population lives in rural areas and the population growth is high. (World Bank, 2011)

3.8. SAARC Association

The South Asia Association for Regional Cooperation was established on 8 December 1985. This charter was created to increase cooperation among the countries in 4 major areas: economy, science, culture and social sphere. Its secretariat is located in Kathmandu, Nepal. Another step among South Asia cooperation took place in 1995 and in the period of 2001 - 2004. In 1995 the South Asia Preferential Trading Agreement (SAPTA) it was the first step towards creating a free trade area in the region. In 2004 the treaty for the South Asian Free Trade was signed, trade liberalization programme has taken palace ever since. (Kham, 1999)

3.8.1. Brief description of SAARC countries and their trade relations to the EU

Selected countries – Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka form together the South Asian Association for Regional Cooperation (SAARC). Its nations represent full 23.3 % of the current global population, what means already 1.632 billion inhabitants at the end of 2012. However these eight countries are home to nearly 40 % of the world's poor. SAARC is an economic and political organization of nations, whose aims are to accelerate the process of economic and social development in its member states through increased intra-regional cooperation. The association was formally established on 8th December 1985 when governments of seven countries (excluding Afghanistan) adopted its Charter. Nevertheless the idea of closer regional cooperation in South Asia was already made by the late president of Bangladesh, Ziaur Rahman, on 2nd May 1980. Afghanistan joined the organization only in 2007. SAARC's headquarters (Secretariat) has been based in Nepal's capital Kathmandu since 16th January 1987. Meetings of heads of state are usually scheduled annually, while meetings of foreign secretaries twice annually. The SAARC Secretariat is supported by 12 Regional Centres established in member states (excluding Afghanistan meanwhile). Agricultural Centre (SAC) is based in Bangladeshi capital Dhaka.

The European Union has observer member status in the Association (since 2006), as does so far also Australia, Myanmar, China, South Korea, the U.S.A., Iran, Japan and Mauritius. Myanmar and China have already expressed their interest in upgrading their status to a full membership; furthermore Russia is interested in becoming observer member of the SAARC. South Africa has participated in meetings, too. (EU, 2012)

South Asia is unfortunately a region where "strong nationalistic feelings" still create quite serious problems in the process of regional integration. From South Asian perspectives, democracy and human rights provisions have often amounted to punitive clauses rather than incentives. Also the internal arrangements and function of

the South Asian integration is totally different from the European Union. SAARC is an association of countries which remain totally sovereign; EU is an union whose member states delegate more and more of their sovereignty to common institutions. (Kelegama, 2010)

The sixth meeting of the Council of Ministers (New Delhi, 18th – 19th December 1995) agreed a necessity of transformation the whole region to a free trade zone SAFTA (South Asian Free Trade Zone), leading later to a customs union. The agreement on SAFTA was signed on 6th January 2004 on 12th SAARC's summit in Islamabad and it was intended to come into force from 1st January 2006 (as Trade Liberalization Programme) after completion of national ratification by all member countries. Least developed member countries got three more years for ratification process. India and Pakistan ratified SAFTA in 2009; Afghanistan has ratified Agreement as the last member state on 4th May 2011. Tariff reduction under SAFTA nevertheless started already on 1st July 2006, the aim has been the reduction by 20 % till 2009 and a total removal of duties till 2016. However all member countries still maintain till now a "sensitive list" of selected products (Government of Bangladesh, 2012) (still ca 10,000 Non-LDCs and LDCs items are found on the lists of all member countries).

3.8.2. Cooperation between European Union and SAARC Association

All nations in the region of South Asia see now the international trade as a key necessity for their further development and six of that eight are members of the multilateral trading system defined by the WTO (excluding Afghanistan and Bhutan). The European Union is even the largest trading partner of South Asia now. It has expanded its trade there mainly through bilateral Partnership Cooperation Agreements (PCAs) – country-specific trade policies adopted by the EU: the impending EU–India FTA, the EU–Pakistan Joint Commission, GSP, GSP+ and EBA. EU and SAARC concluded already 5 similar bilateral agreements on cooperation with single member states – Bangladesh, India, Nepal, Pakistan and Sri Lanka. (EU, 2012) These agreements aim to

develop the cooperation ties between the partners, while ensuring a respect for human rights and promoting democratic principles. The main cooperation objectives concern not only a trade (increasing, diversifying and liberalizing trade) but also economy (business environment), sustainable development (social progress and combating poverty), human resources (qualification, international standards) and rural development (increasing trade in agricultural, fisheries and farmed products).

Key milestones of the mutual EU-SAARC cooperation are:

- 1996: European Commission and SAARC Secretariat sign Memorandum of Understanding on Cooperation which has provided the background for technical assistance on trade matters
- 1999: U and SAARC agree to cooperate on improving market access for SAARC products into EU, working towards a cumulating of rules of origin for SAARC products for exports to the EU, giving a technical support for the establishment of the South Asian Free Trade Agreement and supporting the harmonization of SAARC standards (EU, 2011)

3.9. Brief characteristics of the SAARC countries and their trade exchange with EU 27

GDP per capita is the major suitable characteristics when evaluating economic efficiency of selected countries. In this sense SAARC countries occupy a bottom half of world's GDP scale. According to European Union, where totally 225 world countries are ranked (excluding tiny overseas territories dependent on their mother country), is the order as following (2011) (te Valde, 2012):

Table 1 GDP per capita in South Asia Countries

Country	**GDP per capita (USD)**		**Rank**	**GDP growth (2011)**			
-	CIA	WB		2008	2009	2010	2011
	(GDP)	**(GNI)**					

Maldives	8,400	7,430	118.	12.2	-4.7	5.7	7.4
Bhutan	6,000	5,570	136.	4.7	6.7	10.6	5.9
Sri Lanka	5,600	5,520	140.	6.0	3.5	8.0	8.2
India	3,700	3,590	160.	6.2	6.6	10.6	7.2
Pakistan	2,800	2,870	172.	3.7	1.7	3.8	2.4
Bangladesh	1,700	1,940	193.	6.0	5.9	6.4	6.1
Nepal	1,300	1,260	203.	6.1	4.4	4.6	3.5
Afghanistan	1,000	1,140	212.	3.6	21.0	8.4	5.7

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

GNI per capita is based on purchasing power parity (PPP). GNI is a gross national income converted to "international dollars" using purchasing power parity rates. An international dollar has the same purchasing power over GNI as U.S. dollar has within the territory of the United States. (World Bank Group, 2013)

For comparison – 1st ranked and last ranked (225th) country in 2011 were Liechtenstein with GDP/GNI 141,100/134,915 USD and Democratic Republic of Congo with 300/340 USD per capita. (The World Factbook, 2012) Two largest economies of the SAARC nations – India and Pakistan – suffer, from the viewpoint of GDP/GNI per capita, from their huge and fast growing population.

Despite of the generally low position of all SAARC countries on the list of the most efficient world's economies, their GDP growth has been highly positive compare to Euro zone countries and the rest of the western world being hit by a deep financial crisis within a time period after 2008.

Table 2 Development of SAARC – EU 27 trade on agriculture products within a period 2007 – 2011

(Product group 1100 – Agricultural products (Food incl.Fish & Raw Materials, SITC Rev.3 (UN, WTO & AMA, NAMA (WTO))

Year -	Imports (mil.Euro)	Share in imports (%)	Exports (mil.Euro)	Share in exports (%)
2007	973.1	2.70	2,901.2	7.8
2008	1,126.5	2.96	3,484.2	8.5
2009	1,023.2	3.0	2,980.9	8.1
2010	1,422.4	3.37	3,534.8	7.6
2011	1,643.4	3.4	4,289.5	7.8

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

As seen from figures above the share of agricultural products in SAARC's trade with EU 27 countries has been stagnating within a period of last five years, although steadily growing in absolute volumes. Imports rose by 69 % within the period mentioned, while exports rose by 48 %. Nevertheless the trade balance of SAARC group with EU 27 has been significantly positive (exports exceeded imports by 261 %).

3.10. Foreign trade of single countries within SAARC

3.10.1. India

Although India has steadily opened up its economy, its tariffs continue to be quite high when compared with other countries and its investment norms are still restrictive. Till the early 1990s India was a closed economy, average tariffs exceeded 200 %, quantitative restrictions on imports and stringent restrictions on foreign investment were extensive. The country began to cautiously reform in the 1990s,

liberalizing only under conditions of an extreme necessity. Since that time, trade reforms have produced remarkable results. India's trade to GDP ratio has increased from 15 % to 35 % of GDP between 1990 and 2005, and the economy is now among the fastest growing in the world. India however retains its right to protect when necessary. Agricultural tariffs still averaged between 30-40 % at the early 2000s, anti-dumping measures have been liberally used to protect trade, and the country is among the few in the world that continues to make difficult foreign investments in retail trade. Although this policy has been somewhat relaxed recently, it remains considerably restrictive. India's average applied tariff was in 2008 still 14.5 % compared to an EU average of 4.1 %. Since the EU's tariff reduction is likely to be less than India's reduction, it is likely that the EU's share of the Indian market will rise more than India's share of the EU market. (Kelegama, 2010)

The EU's cooperation framework with India is the EU-India Joint Action Plan (JAP), which was established in 2005 and revised in 2008. Since 2007, India and the EU have been negotiating a free trade agreement (FTA), which has already gone through several rounds and reached an intense phase after all. (European Commission, 2013) It is likely to improve market access for goods and services, and to cover all trade except public procurement, which India is not willing to include in the FTA. This problem has attracted global concern over its potential impact on the manufacture, supply and distributions of generic medicines from India. (Bhardwaj, 2012) Some of the health safeguards in India's patent legislation, which make possible the production of cheap generic medicines, threaten the signing of the FTA with EU 27. Another problem is the TRIPS (Trade-Related Aspects of Intellectual Property Rights), which are known to have an adverse impact on generic production. Leaked versions of the EU – India FTA negotiation texts from 2009, 2010 and 2011 show that the EU, in a stark departure from its traditional model of trade negotiations, is now demanding ambitious TRIPS-plus measures of developing countries. (Bhardwaj, 2012)

Primary imports from EU to India were in 2011 (European Commission, 2012): machinery and transport equipment (44.7 %), semi-manufactures (24.7 %), chemicals (8.5 %), iron and steel (5.6 %), fuels and mining products (5.5 %). Main export items to EU were: textiles and clothing (19.4 %), chemicals (13.0 %), machinery and transport equipment (17.8 %), fuels and mining products (13.8 %), agricultural products (8.0 %).

Despite of the significant increase in a trade exchange between India and EU 27 within last five years (imports from EU countries have increased about 50 %, exports to EU 27 even more - about 66 %) the share of EU countries in the total foreign trade exchange of India has gone down. The important role is probably played by the financial crisis after 2008. The real effect of the latest reform of the Common Agricultural Policy remains unclear then, too.

Table 3 Development of India - EU trade on agriculture products within a period 2007 – 2011

(Product group 1100 – Agricultural products (Food incl.Fish & Raw Materials), AMA (WTO

Year -	Imports (mil.Euro)	Share in imports (%)	Exports (mil.Euro)	Share in exports (%)
2007	556.7	1.9	2,108.8	7.9
2008	570.2	1.82	2,506.8	8.5
2009	534.7	1.9	2,115.9	8.3
2010	739.0	2.12	2,558.6	7.7
2011	904.0	2.2	3.173.3	8.0

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

As seen from figures above the share of agricultural products in India's trade with EU 27 countries has been more or less stagnating within a period of last five

years, although steadily growing in absolute volumes. Only the share of imports from the EU 27 has been growing a little. Indian priority nevertheless seems to be free access to EU's markets under desired FTA agreement or with lowest duty tariffs and without import quotas. Note: the share of agricultural products within Indian total exports worldwide was 9.6 % in the fiscal year 2010 -11 and 12.3 % in 2011-12, it means higher than the same share within the exports to the EU 27 countries in the same period. (Government of India, 2012)

It seems curious that the trade between India and other member countries inside SAARC group has been quite insignificant so far. The most important trade partner within SAARC was Sri Lanka in 2011 (European Commission, 2012) ranked however only 27th on India's trade partner list with only 0.7 % share of a total volume in Indian foreign trade. Bangladesh was ranked 31st (0.6 %), Nepal 34th (0.4 %), Pakistan 41st only (0.3 %), while Afghanistan, Bhutan and Maldives were not on the list of the first 50 main trade partners to India. Indian exports to all SAARC countries formed only 4.6 % of total exports worldwide in the fiscal year 2010 – 2011 (4.3 % in 2011 – 2012), imports from SAARC countries were almost negligible in the same period (0.6 % of total imports in 2010 – 2011 and only 0.5 % in 2011-2012 fiscal year). (Government of India, 2012)

India was listed 26th among the main agriculture products importers from EU 27 in 2011. (European Commission, 2012) On the other side India was ranked 13th among the main suppliers of agriculture products (group 1100 AMA/WTO) to EU 27.

3.10.2. Pakistan

Pakistan's international trade has ever been suffering from a huge amount of deficit due to low demand for its export and failure to explore and exploit its own oil and gas resources to a full capacity. It has led to relying on imports in order to meet the growing energy demands in the country. Domestic political instability also accounts for the trade deficit. The trade deficit stood at 10.1 billion euro in 2009, 16.7 billion in

2010 and 18.2 billion in 2011. Nevertheless first important steps have been already taken to liberalize the foreign trade and investment regimes of the country. Due to increasing current account deficit the trade gap range of maximum tariffs was raised on 300 luxury items by Pakistani government already in the 2008-09 budget, but this measure has not brought sufficient effect. Always fast growing demand on energy consumption leads every year to a growing crude oil import- for example from 7.761 billion euro in 2010 till 10.170 billion euro in 2011.

The EU's support the integration of Pakistan with the global economy by granting Pakistan's export to EU 27 reduced tariffs under the EU's Generalised Scheme of Preferences. As a result, more than 78 % of Pakistan's export enters the EU at preferential rates, most of all textile and clothing articles. (Government of Bangladesh, 2012) Textiles and clothing account for around 75 % of Pakistani exports to EU 27. Nevertheless those exports have increased only modestly in terms of their value – despite the elimination of quotas. The reason is Chinese competition on European markets. However, relying so heavily on one product category carries risks for Pakistan. Trade diversification programmes have been already launched by the EU – to reduce the country's reliance on the textiles and clothing sector (Government of Bangladesh, 2012)

The EU 27 is being the most important trading partner now – taking 21.2 % of Pakistani's total exports in 2012. (Government of Bangladesh 2012) EU-Pakistan trade increased by almost 4.7 % annually between 2007 and 2011. China was still the main trade partner in 2011 (14.8 % of the total Pakistani trade, EU 27 was the second with 14.4 %) The respective European statistic data of 2012 (European Commission, 2012) only confirm the change in ranking the main trade partners. At present time 17.4 % of Pakistani imports is delivered from EU 27, which means that EU 27 is the 2nd main importing partner after China with 18.4 %, before Saudi Arabia with 11.5 % and United Arab Emirates with 11.4 %).

According to the latest figures of Pakistani authorities (DEFRA, 2012) the export to EU 27 unfortunately went down by 13.34 % in the fiscal year 2011-2012 – to 4.122 billion Euro . That drop was caused by devastating floods that hit Pakistan in 2012. As part of the EU's response to the floods, the European Parliament and the Council signed the measures giving emergency autonomous trade preferences for Pakistan on 25th October 2012. This means that certain goods from Pakistan can enter the EU as duty free or will be a subject to certain ceilings (tariff rate quotas). (Government of Bangladesh 2012) The measures enter into force in November 2012 following their publication in the EU's Official Journal and will be in place until 31st December 2013.

Table 4 Development of Pakistan-EU 27 trade on agriculture products, period 2007 – 2011

(Product group 1100 – Agricultural products (Food incl.Fish & Raw Materials, AMA (WTO)

Year -	Imports (mil.Euro)	Share in imports (%)	Exports (mil.Euro)	Share in exports (%)
2007	205.7	5.5	195.2	5.6
2008	322.4	7.5	354.1	10.7
2009	226.7	6.3	282.4	8.5
2010	263.0	7.0	305.0	8.9
2011	347.5	9.3	374.0	8.2

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

As seen from figures above the share of agricultural products in Pakistan's trade with EU 27 countries has been bigger than in India's foreign trade. Furthermore its volume has been constantly growing within a period evaluated (imports by 69 %, exports even by 92 %). Balance of a trade exchange is positive for Pakistan in this

category of goods. Pakistan's priority seems then to be as much free access to EU's markets as possible - with lowest duty tariffs and without import quotas laid.

Pakistan was ranked 48th among the main importers of agriculture products from the EU 27 in 2011. (European Commission, 2012) On the other side Pakistan was ranked 50th among the main suppliers of agriculture products to EU 27 within the product group 1100.

Generally is the Pakistani trade with other SAARC's countries quite underdeveloped and insufficient. Not almost non-existing like in the case of India, but still not wide enough. Trade exchange with the rest of SAARC formed in fiscal year 2010-2011 ca 10.5 % of a total Pakistani trade with entire world (in exports 15.9 %, imports 5.1 % only). Nevertheless tendency is positive from a year to year – from 7.5 % in a fiscal year 2007-2008 up to 10.5 % in 2010-2011 (DEFRA, 2012). The major partner to Pakistan among SAARC countries was surprisingly Afghanistan in 2011 ranked 8th main partner with the share of 3.8 % of the total Pakistani trade (formed however from 92 % by exports to Afghanistan), India is listed 10th with 2.9 % share.

3.10.3. Bangladesh

Bangladesh is a poor country featuring negative trade balance since its independence in 1971. The value of imports doubled between 1971 and 1991 as compared to the value of exports. Nevertheless the trade deficit has declined considerably due to an increase in exports since 1991. In 1989-90 imports exceeded exports by full 120 %, this percentage came down then to 56 % in 1996 and 62 % in 1997. The economy of Bangladesh was riding on jute for a long time (Bangladeshi share of the world jute export market was 80 % in late 1940s, but came down in the 1970s due to the trend of polypropylene products). Although Bangladeshi trade balance was negative in general volume, the trade balance with EU countries has always been far positive. For example already in 2001 reached Bangladeshi export to EU a value of 3.349 billion Euro, while imports stayed on 850 million Euro, Bangladesh

was ranked 43rd import partner and 85th export partner of the EU. However 87 % of all exports to the EU were textiles & clothing (for 2.936 billion euro). Positive trend within the trade balance has continued after 2004 also with extended EU group – EU 27 and has existed till now. For example - total Bangladeshi imports were in 2011 full 25.45 billion euro and exceeded exports by 11.32 billion euro (by 80 %). On the other side surplus of the trade balance with EU 27 was 6.35 billion euro at the same period (exports exceeded imports by 480 %). (Racine, 2004)

Primary imports from EU to Bangladesh were in 2011 (European Commission, 2012): machinery and transport equipment (56.2 %), chemicals (12.4 %), agriculture products (8.8 %) and semi-manufactures (4.6 %). fuels and mining products (5.0 %). Main export items to EU were: textiles and clothing (88.7 %) and agricultural products (3.7 %).

As noted above the trade exchange between Bangladesh and the EU rose by 230.7 % in the period 2001 - 2011 (from 4.199 billion to 9.688 billion euro). (Racine, 2004) EU 27 has become the first major trade partner to Bangladesh with 23 % share in a total trade exchange of the country with the entire world. Exports to EU 27 approached in 2011 almost a half of all exports (48.5 %), EU 27 was then the third main import partner to Bangladesh – after China and India.

In addition to being the single largest business partner of Bangladesh, the EU is also the country's largest development partner. Full 398 million euro is projected to flow into Bangladesh in 2007-2013. Bangladesh enjoys quota-free and duty-free access to the EU under a 1986 textile agreement and the GSP scheme; and from 2001 under the EBA initiative. (Kelegama, 2012)

The growth of Bangladeshi exports to EU 27 in the period 2007-2011 is significant (84.8 %). Imports grew much slower, too (by 35 %). Such an development and existing surplus in a mutual trade with EU 27 has been highly desired in the situation of long-term negative trade balance of Bangladesh with the other world.

Share of the EU 27 in all exports is growing, too, and much faster than imports. The effect of the latest reform of the Common Agricultural Policy could be taken into an account.

Table 5 Development of Bangladesh-EU 27 trade on agriculture products, period 2007 – 2011

(Product group 1100 – Agricultural products (Food incl.Fish & Raw Materials), AMA (WTO)

Year -	Imports (mil.Euro)	Share in imports (%)	Exports (mil.Euro)	Share in exports (%)
2007	63.8	6.2	224.3	4.4
2008	74.1	6.95	215.4	3.9
2009	81.5	8.1	229.1	3.9
2010	198.0	12.2	282.3	4.2
2011	149.7	8.8	321.0	3.7

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

As seen from figures above the share of agricultural products in Bangladeshi trade with EU 27 countries is not too important and more or less stagnating, although imports from EU countries to Bangladesh has been growing in recent years (by 235 %). Also Bangladeshi priority nevertheless seems to be free access to EU's markets with lowest duty tariffs and without import quotas.

Bangladesh was listed 76th among the main agriculture product importers from EU 27 in 2011. (European Commission, 2012) On the other side this country was ranked 60th among the main suppliers of agriculture products (of a product group 1100) to EU 27.

3.10.4. Sri Lanka

For several decades, Sri Lanka assumed a proactive role as a driving force to trigger trade liberalization in the region of South Asia. The country is a member of both SAFTA (South Asia Free Trade Agreement), having FTA with India, too. The bilateral trade between India and Sri Lanka has grown by 725 % in the last 12 years – from 506 million euro in 2000 to 3.669 billion Euro in 2011.

Relations between the EU and Sri Lanka go back to 1975, when the first partnership and cooperation agreement was signed. This was updated in 1995 and an EU-Sri Lanka agreement has been in force since May 2005. Since the same year Sri Lanka has also enjoyed the status of the most preferred nation in South Asia – through its inclusion in the Generalised Scheme of Preferences Plus (GSP+) of the European Union. Despite of the decision to temporarily withdraw the GSP+ benefits in 2010, Sri Lanka has still enjoyed preferential access to the EU market for its key export items to the EU, such as clothing (47% of the total exports in 2000, 52.4 % in 2007, even 60.5 % in 2009, 56.4 % in 2011). Sri Lanka's trade still benefits a lot from its modern ports that were built by the British colonial masters before their leaving the island. (Racine, 2004)

The foreign trade deficit stood at 2.39 billion euro in 2009, but steeply rose in following period (5.19 billion in 2010 and 7.46 billion euro in 2011). Further export growth should be ensured especially by higher earnings from the export of a tea (640 mil. euro in 2011). Nevertheless trade balance between Sri Lanka and EU 27 has been highly positive (surplus ca 1 billion euro each year) since 2007.

The EU 27 was Sri Lanka's largest export destination in 2011, absorbing 36.7 % of its exports. EU 27 was on the other side the third major import partner to Sri Lanka covering 9.9 % of a total country's import - after India (22.3 %) and China (10.9 %). (European Commission, 2012) Though EU 27 are in general the most important trade partner to Sri Lanka wit 19.1 % share in a total trade exchange with the entire world.

India is the second with 16.4 % share. The trade with EU has risen by 815 % from 2.675 billion euro in 2000 up to 21.821 billion euro in 2011, its balance has nevertheless dramatically changed from positive till significantly negative. (Racine, 2004)

Major items of EU's export to Sri Lanka was machinery and transport equipment in 2011 (36.6 % of total exports, full 73 % in the year 2000), semi-manufactures (25.4 %) and agriculture products (6.1 %). Main item of Sri Lanka's export to EU 27 was clothing (56.4 % of the total volume), semi-manufactures (19 %) and agriculture products, especially various brands of a tea (13.8 %).

Table 6 Development of Sri Lanka - EU 27 trade on agriculture products, period 2007 – 2011

(Product group 1100 – Agricultural products (Food incl.Fish & Raw Materials), AMA (WTO)

Year -	Imports (mil.Euro)	Share in imports (%)	Exports (mil.Euro)	Share in exports (%)
2007	71.4	7.0	302.8	14.5
2008	57.4	5.5	326.0	15.1
2009	57.8	6.6	294.9	14.5
2010	71.6	5.3	328.4	15.0
2011	82.9	6.1	328.9	13.8

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

As seen from figures above the share of agricultural products in Sri Lanka's trade with EU 27 countries is quite significant, although stagnating in a period mentioned. Common Agricultural Policy and their reforms could have some significant influence to a trade with this Asian partner. Sri Lankan priority seems then to be also

the free access to EU's markets as possible - with lowest duty tariffs and without import quotas laid.

Sri Lanka was ranked 101th among the main importers of agriculture products from the EU 27 in 2011. (European Commission, 2012) On the other side was Sri Lanka ranked 59th among the main suppliers of agriculture products to EU 27 within the product group 1100.

3.10.5. Maldives

Tourism is the primary industry for Maldives, accounting for about 30 % of the country's GDP. Its growth by 6-8 % reached over the last decade just due to investments in the tourism sector. In 1970s were Maldives one of 20 poorest countries of the world, but it currently shares many characteristics of a lower middle-income country. Economy is largely dependent on tourism and fisheries, making Maldives vulnerable to external shocks as witnessed by the economic recession following the tsunami in December 2004. Financial damage was estimated at 62 % of GDP then, or 360 million Euro, aggravated by a non-tsunami budget deficit in 2005 (ca 60 mil. euro) due to a significant fall in revenue from tourism. After tourism, fishing is still an important industry for Maldives. After fishing, agriculture and manufacturing are two other industries which play very important role when it comes to the economy of Maldives. Nevertheless agriculture sector is limited due to a shortage of good arable land for growing crops and enough domestic labour. Therefore Maldives depend on food import, too. Maldives is spread on 1.900 islands (198 of them are inhabited), people are scattered all over huge area, limited by insufficient infrastructure.

Maldives foreign trade is oriented especially to countries like Singapore, United Arab Emirates, India and Thailand. Nevertheless its export is from almost a half oriented to the countries of the EU. It means EU 27 is the major export partner to Maldives (in 2011 full 48.7 % of exports were directed there). In imports are EU 27

the fourth main partner to Maldives with 8.1 % share (Singapore leading with 23.5 %, followed by United Arab Emirates with 18.2 % and India with 8.8 % share).

Primary imports from EU to Maldives were in 2011 (European Commission, 2012): machinery and transport equipment (36.6 %), agricultural products (32.1 %), semi-manufactures (6.2 %) and chemicals (8.0 %). Main export items to EU were agricultural products, especially tuna fish products (95.7 %).

As stated before the EU has been, already for decades, one of the major Maldivian trade partners. The volume of mutual trade exchange rose by 709 % between 2000 and 2011 years (Daily Times online, 2012), from 22.3 million Euro (represented exclusively by the U.K. and Germany at that time) up to 158.0 million Euro in 2011.

Despite of the significant increase in a trade exchange between Maldives and EU 27 within the period 2000-2011, both imports from EU countries and exports to EU 27 show decreasing tendency after 2008. This phenomenon can be connected with the European financial crisis. Nevertheless roughly balance of imports and exports from/to EU 27 is ample, in contrast with Maldivian general trade balance with the entire world which shows huge misbalance on the side of imports, exceeding imports more than 7.5 times. The effect of the latest reform of the Common Agricultural Policy remains unclear. (Daily Times online, 2012)

Table 7 Development of Maldives-EU 27 trade on agriculture products, period 2007 – 2011

(Product group 1100 – Agricultural products (Food incl.Fish & Raw Materials), AMA (WTO)

Year -	Imports (mil.Euro)	Share in imports (%)	Exports (mil.Euro)	Share in exports (%)
2007	18.1	21.7	45.5	93.6

2008	21.3	20.7	58.7	97.8
2009	19.0	30.9	47.7	97.0
2010	22.7	34.4	34.6	96.1
2011	26.6	32.1	71.5	95.7

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

As seen from figures above the share of agricultural products in Maldivian trade with EU 27 countries has been really high within a period of last five years, and furthermore still growing in absolute volumes. It is clear that Maldivian priority is to maintain free access to EU's markets with lowest duty tariffs and without import quotas. CAP can play some important role in this effort, too.

Maldives was listed 131st among the main agriculture product importers from EU 27 in 2011. (European Commission, 2012) On the other side Maldivian rank is 97th among the main suppliers of agriculture products (of a product group 1100) to EU 27. This low position on the EU's list is caused by the low total volume of the trade exchange, although the share of the EU was nearly 100 % in Maldivian agriculture product exports in 2011. (European Commission, 2012)

3.10.6. Afghanistan

Afghanistan is an economically downtrodden country that relies highly on farming and livestock. There was an astronomical decline in the GDP of the country in the last two decades of the 20th century. The contributing factors included disruption in trade and transport, loss of capital and labour. The economic activities were widely interrupted by the Soviet invasion in 1979, followed by civil war, which were responsible for the mass destruction of the country's limited infrastructure. However, the fall of Taliban forces in 2001 and infusion of billions of dollars and Euro improved trading significantly. Trading is mainly done with neighbouring countries and the U.S.A.

(European Commission, 2012). GDP started after all to rise again up to a temporary maximum in 2009 (21 %). (The Economic Times, 2012)

Although Afghanistan is rich in natural resources, very little has been done to explore them. Some of these sources are extensive deposits of a natural gas, petroleum, coal, copper, chromium, talc, barites, sulphur, lead, zinc iron ore, salt, precious and semiprecious stones. However, the country's rugged terrain and lack of transportation network restrict trade activities. Estimations also state that huge amount of money are gained from an illegal production and smuggling of opium through Pakistani leaky border.

Afghan foreign trade balance has been significantly negative so far, annual total imports have exceeded exports by 1,200 – 2,200 % within last six years. A trade with the EU suffers also from negative balance, EU exports exceeded imports from Afghanistan by 2,100 – 4,900 % within the last four years (2008-2012). (European Commission, 2012)

The EU 27 is being the third most important trading partner now – taking 11.2 % of the Afghan total foreign trade in 2011. (European Commission, 2012) The first main trade partner to Afghanistan has been the U.S.A. so far (after 2000) – with 29.7 % share of a total trade in 2011. The second main partner was Pakistan on the trade list with 21.0 % share. (European Commission, 2012) From the viewpoint of Afghan exports was the first major partner Pakistan (33.2 % share), while the second listed was India (23.5 %), third Tajikistan (8.7 %) and the fourth was listed EU 27 (7.5 % in 2011). The major import partners were in the same period the U.S.A. (30.9 %), Pakistan (20.4 %) and EU 27 (11.3 %). There was a huge difference between U.S. import from and export to Afghanistan in 2011. While an Afghan export value was 14.1 million euro, the value of imports from the U.S.A. was 2,421.6 billion euro (imports from the U.S.A. exceeded exports 172 times).

Major commodities in the EU's export to Afghanistan were in 2011 machinery and transport equipment (47.7 % of a total volume), fuels and mining products (18.5 %), power generating machinery (16.8 %), agricultural products and live animals (13.7 %) and telecommunication equipment (5.9 %). Afghanistan's export to EU consisted of agricultural products and raw materials (43.3 %) – fruits and nuts, opium, wool, cotton; further manufactures and semi-manufactures (44.7 %) - hides and pelts, hand-woven carpets; precious and semi-precious stones.

Among other SAARC's countries – besides of Pakistan mentioned above (ranked 2nd on the Afghan list of major trade partners) is the other main partner India (ranked 5th in 2011 with 6.1 % share in total trade exchange) and further Bangladesh on 21st place (0.3 % in 2011). Other SAARC countries have not been ranked at all.

Afghan imports from the EU has constantly grown within last years (by 76 %), while exports varies up and down. Due to Afghan domestic political situation and general instability there is only a small chance for any change in the near future. Discussion about the possible effect of the Common Agricultural Policy of the EU has been irrelevant so far.

Table 8 Development of Afghanistan-EU 27 trade on agriculture products, period 2007 – 2011

(Product group 1100 – Agricultural products (Food incl.Fish & Raw Materials), AMA (WTO)

Year -	Imports (mil.Euro)	Share in imports (%)	Exports (mil.Euro)	Share in exports (%)
2007	43.1	11.1	15.7	79.6
2008	71.5	10.9	15.0	35.7
2009	94.6	15.1	8.9	57.9
2010	114.7	15.1	24.9	67.3

2011	121.7	13.7	20.3	43.3

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

As seen from figures above the share of agricultural products in Afghanistan's trade with EU countries is quite reasonable. The volume of imports has been constantly growing (by 182 % within period mentioned above), while the volume of exports varies and is quite marginal. Afghanistan was ranked 88th on the EU's list of the main importers of its agriculture products (2011). (European Commission, 2012) On the other side was Afghanistan ranked 117th among the main suppliers of agriculture products to EU 27 within the product group 1100.

3.10.7. Nepal

Traditionally, Nepal's foreign trade was limited to Tibet and India. The tight trading relations to Tibet were interrupted after communist China's ban on Tibet in 1960. In 1980, 21 new trade routes across the Tibetan frontier were reopened. (Sambat, 2012) Nevertheless treaty arrangements with China strictly regulate the passage of both traders and pilgrims in either direction across the border. Indeed, no country in the world (excluding neighbouring Bhutan) is so hopeless dependent on the availability of transit facilities from a single country as Nepal. (Bhandari et al, 2005) Since transit through China was virtually impractical, India has been - for a long time - the only economically viable for all commercial flows. Up until 1989 treaty agreements between India and Nepal allowed unrestricted commerce across 21 customs posts along the border, and duty free transit of Nepalese goods intended for third-party countries through India. In 1989, a breakdown in the treaty renewal brought deep problems to the Nepalese foreign trade and the entire economy – till the renewal of the bilateral trade treaty with India in 1997. Nepalese goods then entered India essentially duty free and quota free again. As a result, exports to India grew for four years, from 1997 to 2001, at an average rate of 42 % a year. The India-Nepal Treaty of Trade, signed in March 2002, continues to allow Nepalese manufacturers to enter the

Indian market on a nonreciprocal, preferential, or duty-free basis, with rules of origin less restrictive than the international norm is (70 % foreign content against usual 50 %). However, it places quotas on four sensitive imports: vegetable fats, acrylic yarn, copper products and iron oxides. It is evidenced from almost all trade and transit treaties between these two countries that the transit facilities had in the past always been provided by India in exchange for Nepal's acceptance in giving incentives to Indian goods in Nepalese territories.

Nepalese foreign trade performance has so far been poor. Its landlockedness is one of the major causes for Nepal's weak production base, which is eventually linked with the fast growth of exports and import of technology and raw materials. It is clear that the major part of Nepalese trade is directed to India.

The trade exchange with EU countries has not grown in fact since the year 2000. It reached a volume of 266 million euro in 2000, in 2011 the trade was even lower – 164 million euro. (European Commission, 2012) This decrease has been caused by lowering a volume of Nepalese exports of textiles and clothing in the last 12 years, probably due to a strong competition from other Asian producers, especially Bangladesh, Pakistan, Indonesia and Sri Lanka. (Racine, 2004)

Table 9 Development of EU 27 – Nepal trade on agriculture products within a period 2007 – 2011

(Product group 1100 – Agricultural products (Food incl.Fish & Raw Materials), AMA (WTO)

Year -	Imports (mill.Euro)	Share in imports (%)	Exports (mill.Euro)	Share in exports (%)
2007	9.1	12.7	8.8	9.7
2008	7.5	10.7	8.2	9.2
2009	8.4	12.7	2.1	2.9

2010	9.2	11.2	1.3	1.7
2011	10.2	14.1	2.6	2.8

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

As seen from figures above the share of agricultural products in Nepali trade with EU 27 countries is not too important. Imports from the EU are more or less stagnating, exports to the EU countries has even gone steeply down within last four years. The reason can be European financial crisis. Also Bangladeshi priority nevertheless seems to be free access to EU's markets with lowest duty tariffs and without import quotas.

Nepal was listed 151st among the main agriculture product importers from EU 27 in 2011. (European Commission, 2012) On the other side this country was ranked again 151st among the main suppliers of agriculture products (of a product group 1100) to EU 27.

3.10.8. Bhutan

Bhutan, in 21st century, is an integral component in the South Asian trade and commerce system after all. Its foreign trade has flourished especially during the 8th (1997 – 2002) and 9th (2002 – 2007) five year plan, and is slowly but surely making its mark on the whole SAARC economy. Bhutan had opened trading relations predominantly with India after the 1960 China's ban on Tibet. Bhutan closed its border with Tibet reciprocally, too, in 1961. Since that time only barter cross border trade has continued between Bhutan and Tibet. On the contrary relations with India became to be very tight, especially through several hydroelectric projects built by India on the basis of a common financing (60 % from grants, 40 % through Indian loans. India has already finished three hydroelectric projects – Shukha 336 MW (1986), Kurichu 60 MW (2002) a Tala 1200 MW (2007). Completion of another two projects is planned till 2015 (Punatsangchhu I - 900 MW and Punatsangchhu II - 720 MW). The total production

capacity will reach the output of 15.000 MW in 2015 and the electric power will form up to 80 % of Bhutan's export then, especially to India as a repayment of investment loans provided. The trade with electricity increased significantly from 2007 (exports worth 296 million Euro in 2007). (Sasi, 2008)

Table 10 Development of Bhutan – EU 27 trade on agriculture products within a period 2007 – 2011

(Product group 1100 – Agricultural products (Food incl.Fish & Raw Materials), AMA (WTO)

Year -	Imports (mil.Euro)	Share in imports (%)	Exports (mil.Euro)	Share in exports (%)
2007	N/A	0.4	0.2	2.5
2008	N/A	0.7	0.2	1.8
2009	N/A	3.1	0.4	4.0
2010	N/A	1.6	0.3	2.5
2011	N/A	0.9	0.7	2.7

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

As seen from figures above the share of agricultural products in Bhutan's trade with EU 27 countries is marginal. Effect of the Common Agricultural Policy and their reforms could not be even evaluated.

Bhutan was ranked 189th among the main importers of agriculture products from the EU 27 in 2011. (European Commission, 2012) On the other side was Bhutan ranked 183rd among the main suppliers of agriculture products to EU 27 within the product group 1100.

4. METHODOLOGY

In the practical part of the Diploma thesis, the relationship, eventually the impact of the CAP to socioeconomic factors has been analysed. For this purpose have been used the methods of qualitative and quantitative data analysis and regression analysis.

4.1. Qualitative research

The qualitative, naturalistic approach is used when observing and interpreting reality with the aim of developing a theory that will explain what was experienced. (Benz, Newman, 2004)

By the term “qualitative research“ we mean any type of research that produces findings not arrived at by statistical procedures or other means of quantification. It can refer to research about persons' lives, lived experiences, behaviours, emotions, and feelings as well as about organizational functions, social movements, cultural phenomena, and interactions between nations.

When speaking about qualitative analysis, we are referring to a non-mathematical process of interpretation, carried out for the purpose of discovering concepts and relationships in raw data and organizing these into a theoretical explanatory scheme.

Data may consist of interviews and observations but also might include documents, films or videotapes, and even data that have been quantified for other purposes. (Corbin, Straus, 1998)

4.2. Quantitative research

The quantitative approach is used when one begins with a theory (hypothesis) and tests for confirmation or disconfirmation that hypothesis.

Quantitative research, on the other hand, falls under the category of *empirical studies,* according to some, or *statistical studies*, according to others. These designs include the

more traditional ways in which psychology and behavioural science have carried out investigations.

Most quantitative research approaches, regardless of their theoretical differences, tend to emphasize that there is a common reality on which people agree. Data in quantitative studies are coded according to a priori operational and standardized definitions. (Benz, Newman, 2004)

4.3. Regression analysis

For the purpose of analyzing the relationship between amount of agricultural export per capita and socioeconomic factors regression analysis technique has been used. Regression analysis is the statistical technique that identifies the relationship between two or more quantitative variables: a dependent variable whose value is to be predicted, and an independent or explanatory variable (or variables), about which knowledge is available. The technique is used to find the equation that represents the relationship between the variables. A simple regression analysis can show that the relation between an independent variable X and a dependent variable Y is linear, using the simple linear regression equation Y= a + bX (where a and b are constants). Multiple regression will provide an equation that predicts one variable from two or more independent variables,

$$Y = a + bX_1 + cX_2 + dX_3.$$

Regression analysis is used to understand the statistical dependence of one variable on other variables. The technique can show what proportion of variance between variables is due to the dependent variable, and what proportion is due to the independent variables. The relation between the variables can be illustrated graphically, or more usually using an equation. *(Wonja, 2010)*

4.3.1. Variables

Balance of trade - agricultural products (mil. euro)

Balance of agricultural trade is calculated for each country for one period. The formula used: Balance of trade (NX) = net exports – net imports (for each country from the selected region and EU 27) (Singh, 2004)

GDP in agricultural sector per capita (mil. euro)

"Gross domestic product (GDP) is the monetary, market value of all final goods and services produced in a country over a period of a year.2 The real GDP per capita (corrected for inflation) is generally used as the core indicator in judging the position of the economy of a country over time or relative to that of other countries. The GDP is thus implicitly, and often even explicitly, identified with social welfare – witness the common substituting phrase 'standard of living'. This approach does not follow from any theory about GDP as a measure of social welfare, but has grown to become like this in the course of time". (Jeroen, 2008)

Employed in agricultural sector (%)

As up to almost 70 % of the economically active population is employed in agriculture, the production is represented in countries' exports by great numbers and there might be dependency among these variables.

Nominal Protection Coefficient (NPC) for selected Food Crop (rice)

The Nominal Protection Coefficient (NPC) is defined as the ratio of the domestic price to the world reference price of the selected commodity.

NPC = PD/PR

- PD – domestic price of the selected commodity at the farm gate

- PR – reference price of that commodity, i.e. what the farmer would have received in the case of free trade (world reference price is derived from the international price, adjusted for transport cost (both foreign and domestic), including marketing and trading margins.

In other words, NPC is the ratio of the price the cultivator actually receives for his produce to what he would receive under a hypothetical situation of a free trade in the output (wheat or rice etc.).

To cover the issue of transport costs, the NPC have been calculated under two hypotheses:

a) The selected crop is imported and thus competes at the domestic port with imports including their transport cost (the importable hypothesis)
b) The selected crop is exported and thus competes at a foreign port including transport costs (the exportable hypothesis)

If the NPC is greater (less) than one, then the commodity is protected or in effect taxed, compared to the situation what would prevail under free trade. The NPC overstates (understates) the incentive to apply resources to production if the inputs have higher (lower) NPCs than the final product.

NPC helps especially:

- To measure the extent of divergence (distortion) between domestic and international prices as a result of regulatory policies on international trade and domestic markets.
- Test the hypothesis of under pricing of agriculture in DCs and to measure the extent of bias against agriculture and in favour of industry. (Mullen et al, 2005)

Producer Support Estimate

The value of total PSE, expressed in nominal terms for all agricultural producers in studies area, is the sum of an aggregate Market Price Support (MPS) and aggregate budgetary transfers (BP). MPS is defined as the component that is an "indicator of the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers arising from policy measures that create a gap between domestic market prices and border prices of a specific commodity measured at the farmgate level". It is calculated based on the difference between the domestic price and an equivalent world price of the commodity. The calculation of aggregate MPS consists of three steps:

1. Nominal value of MPS is estimated for individual products, the set of which is known as the covered "MPS commodities".
2. Summarizing the product-specific MPS results into an MPS© for the covered commodities.
3. Calculation the PSE. One method to estimate the total nominal PSE for a country is to include only the market price support derived for these commodities in the calculation: PSE© = MPS© + BP, where BP is the total budgetary payments to producers

Total PSE measures can be expressed on a percentage basis, too. The measure, reported by OECD, uses (VP + BP) as the denominator (where VP is the total value of agricultural production at domestic producer prices). This % PSE gives a "subsidy counter's" measure of support relative to domestic farm revenue.

Because production is valued at international prices in the %MPS and the trade economist's %PSE denominator, while the PSE numerator includes the MPS and budget payments, the trade economist's %PSE will always be at least as high or higher than the %MPS (assuming net budgetary payments are positive). (Orden et al, 2007)

4.4. Analysis of Data

4.4.1. Equation 1

Balance of trade agricultural products (each country) to EU / Employment in agricultural sector - This analysis should determine whether countries where a larger proportion of population work in agriculture are more likely to trade with the EU. Size of the countries and efficiency should not be taken into consideration.

4.4.2. Equation 2

Balance of trade agricultural products (each country) to EU / GDP per capita in agricultural sector - The author would like to determine if there is any positive relationship among balance of trade for each country and EU and volume of GDP in the agricultural sector. This might represent impact of EU policy to those countries' decisions to trade with EU.

4.4.3. Equation 3

Exports of rice from selected countries to EU / Nominal Protection Coefficient (NPC) for selected food crop (rice) and selected countries - This analysis should determine whether there is any dependency between the ratio of the domestic price to the world reference price of rice to exports of rice from selected countries (Bangladesh, Bhutan, India, Pakistan) in the year 2000. Due to the missing data, model could not be constructed for all countries.

4.4.4. Equation 4

Balance of trade agricultural products of India to EU / Producer Support Estimate (India) - Equation 4 should analyse if there is any relationship among India's agricultural balance of trade and Producer Support Estimate for agricultural products over time period of 9 years (1995 – 2003), computed on the basis of 11 main agricultural commodities (cereals, rice, coarse grain, sorghum, sugar, oilseeds, rape seeds, soybeans, sunflower, pulses and cotton).

5. RESULTS INTERPRETATION

5.1. Balance of trade agricultural products / Employment in agricultural sector

The hypothesis was tried to be proved or disproved, by using the regression analysis, concerning the possible relationship between countries' employment in agricultural sector and agricultural export to EU per capita.

Considering the possible existence of unit root in the data, only one survey period was chosen. In the year 2011 amount of agricultural export to EU per capita was reported or measured in countries used for the regression model and employment in agricultural sector was reported in the same year.

The equation:

$$\mathbf{Y_i = a + bX_i + error_i}$$

5.1.1. SUMMARY OUTPUT

Table 11 Regression Statistics results (Equation 1)

Regression Statistics	
Multiple R	0,0344
R Squared	0,0012
Adjusted R Square	-0,1653
Standard Error	853,41
Observations	8

ANOVA

	Difference	**SS**	**MS**	**F**	**Significance F**
Regression	1	5177,65	5177,65	0,007109	0,9355
Residual	6	4369849,24	728308		
Total	7	4375026,89			

	Coefficients	**Standard Error**	**t- Stat**	**P-Value**	**Lower 95%**	**Upper 95%**

Intercept	262,66	867,28	0,3	0,77	-1859,5	2384,8
Aggregate X	1,49	17,68	0,084	0,94	-41,76	44,74

The intercept value (a) is 262,66 and the coefficient for employment in agricultural sector (b) is 1,49.

That is **$y = 262.66 + 1.49\ x + error_i$**

5.1.2. Correlation coefficient

The correlation coefficient, R, ranges from -1 to +1.

Our results belong to the range 0 to 1 which means the two variables tend to increase or decrease together.

The r value is quite far from zero, there are four possible explanations:

· Changes in the X variable change the value of the Y variable.

· Changes in the Y variable change the value of the X variable.

· Changes in another variable influence both X and Y.

· X and Y don't really correlate at all, correlation is observed just by a chance. (Wonjae, 2010)

5.1.3. R squared

Another way to interpret the R value is to square it, this quantity is called the coefficient of determination. This value ranges from zero to one and it is a fraction of the variance in the two variables that is shared. (Wonjae, 2010)

In this case:

R squared $R^2 = 0,012$, then 12 % of the variance in X can be explained by variation in Y. And 12 % of the variance in Y can be explained by variation in X.

5.1.4. Adjusted R square

The Adjusted R Square statistic determines how strong the relationship between Y and X variable is. (Wonjae, 2010) In this case, its value is 0,165, which indicates that about 16,5 % of balance of trade agricultural products (each country / EU) is determined by employment in agricultural sector and 83,5 % is determined by other factors.

5.1.5. P – Value (significance testing)

We then need to consider whether 262.66 and 1.49 are significant or not. We can determine this by considering their p-values. The p-value for intercept is 0.77 which says that the probability that the value 262.66 is produced by random chances is 77 %.

In statistics, the given value is significant if p-value is less than 0.05. (Wonjae, 2010) Looking at the p-values, we see that our intercept coefficients are not statistically significant and the X coefficient is not significant as well.

The ANOVA (Analysis of Variance) table tells us whether or not the model, in this case y=a+bx is significant.

5.2. Balance of trade agricultural products / GDP per capita in agricultural sector

The hypotheses was tried to be proved or disproved, again, by using the regression analysis, concerning the possible relationship between countries' GDP per capita in agricultural sector and agricultural balance of trade agricultural products calculated for each country.

Again, considering the possible existence of unit root in the data, only one survey period was chosen. In the year 2011 balance of trade - agricultural products was reported or measured in countries used for the regression model and GDP per capita in agricultural sector was reported in the same year.

The equation:

$\mathbf{Y_i = a + bX_i + error_i}$

5.2.1. SUMMARY OUTPUT

Table 12 Regression Statistics results (Equation 2)

Regression Statistics	
Multiple R	0,2123
R Squared	0,0451
Adjusted R Square	-0,114
Standard Error	834,435
Observations	8

ANOVA

	Difference	**SS**	**MS**	**F**	**Significance**	
Regression	1	197334,614	197334,61	0,2834	0,6136	
Residual	6	4177692,28	696282,05			
Total	7	4375026,89				
	Coefficients	**Standard**	**t- Stat**	**P-**	**Lower 95%**	**Upper**
Intercept	-135,35	924,728627	-0,146373	0,8884	-2398	2127,37
Aggregate X	1,05	1,97823186	0,5323644	0,6136	-3,787	5,8937

The intercept value (a) is – 135,35 and the coefficient for GDP (b) is 1,05. That is $\mathbf{y = - 135.35 + 1.05\ x + error_i}$

5.2.2. Correlation coefficient

The correlation coefficient, R result belong to the range 0 to 1 which means the two variables (balance of trade - agricultural products (each country / EU) and GDP per capita in agricultural sector) tend to increase or decrease together.

5.2.3. R squared

The coefficient of determination equals:

In this case,

R squared R^2 = 0,054, then 5.4 % of the variance in X can be explained by variation in Y. And 5,4 % of the variance in Y can be explained by variation in X.

5.2.4. Adjusted R square

The Adjusted R Square statistic determines how strong is the relationship between balance of trade - agricultural products (each country / EU) and GDP per capita in agricultural sector. In this case, its value is - 0.114, which indicates that about 11,4 % of balance of trade - agricultural products is determined by GDP per capita in agricultural sector and 89,6 % is determined by other factors.

5.2.5. P – Value (significance testing)

We then need to again consider whether - 135.35 and 1,05 are significant or not. We can determine this by considering their p-values. The p-value for intercept is 0.88 which says that the probability that the value – 135.35 is produced by random chances is 88 %.

In statistics, the given value is significant if p-value is less than 0.05. Looking at the p-values, we see that our intercept coefficient and X coefficient are not significant.

5.3. Exports of rice from selected countries to EU / Nominal Protection Coefficient (NPC)

The hypotheses was tried to be proved or disproved, again, by using the regression analysis, concerning the possible relationship between and Nominal Protection Coefficient (NPC) for selected food crop (rice) and export of this commodity.

Again, considering the possible existence of unit root in the data, only one survey period was chosen. In the year 2000 export of rice was reported in countries used for the regression model and Nominal Protection Coefficient (NPC) for selected food crop (rice) and selected countries was calculated in the same year.

The equation:

$\mathbf{Y_i = a + bX_i + error_i}$

5.3.1. SUMMARY OUTPUT

Table 13 Regression Statistics results (Equation 3)

Regression Statistics	
Multiple R	0,80672
R Squared	0,650796
Adjusted R	0,476195
Standard Error	754,941
Observations	4

ANOVA

	Difference	**SS**	**MS**	**F**	**Significance**
Regression	1	2124332	2124332	3,727318	0,193280448
Residual	2	1139872	569935,9		
Total	3	3264204			

	Coefficients	**Standard**	**t- Stat**	**P-Value**	**Lower 95%**	**Upper**
Intercept	5321,883	2327,718	2,28631	0,149548	-	15337,24
Aggregate X	-4390,57	2274,166	-	0,19328	-	5394,382

The intercept value (a) is 5321,88 and the coefficient for literacy rate (b) is – 4390,57. That is $\mathbf{y = 5321.88 - 4390.57\ x + error_i}$

5.3.2. Correlation coefficient

The correlation coefficient, R results belong to the range 0 to 1 which means the two variables tend to increase or decrease together.

5.3.3. R squared

The coefficient of determination equals:

In this case,

R squared R^2 = 0,65, then 65% of the variance in X can be explained by variation in Y. And 65% of the variance in Y can be explained by variation in X.

5.3.4. Adjusted R square

The Adjusted R Square statistic determines how strong is the relationship between amount of agricultural export to EU per capita and literacy rate. In this case, its value is 0.47, which indicates that about 47 % of exports of rice from selected countries are determined by Nominal Protection Coefficient (NPC) of rice and selected countries and 53 % is determined by other factors.

5.3.5. P – Value (significance testing)

We then need to again consider whether 5321.88 and - 4390.57 are significant or not. We can determine this by considering their p-values.

In statistics, the given value is significant if p-value is less than 0.05. Looking at the p-values, we see that our intercept coefficient and X coefficient are not significant.

5.4. Balance of trade agricultural products (India) / Nominal PSE (India)

The hypothesis was tried to be proved or disproved, by using the regression analysis, concerning the possible relationship between India's balance of agricultural trade in a 9 year period (1995 – 2003) and Nominal Producer Support Estimate calculated for India in the same period.

The equation:

$$\mathbf{Y_i = a + bX_i + error_i}$$

5.4.1. SUMMARY OUTPUT

Table 14 Regression Statistics results (Equation 4)

Regression Statistics

Multiple R	0,656062
R Squared	0,430417
Adjusted R	0,349048
Standard Error	0,622005
Observations	9

ANOVA

	Difference	**SS**	**MS**	**F**	**Significance**
Regression	1	2,046533	2,046533	5,289693	0,054996
Residual	7	2,708234	0,386891		
Total	8	4,754767			

	Coefficients	**Standard**	**t- Stat**	**P-Value**	**Lower 95%**	**Upper**
Intercept	3,114863	0,313117	9,947918	0,000022	2,374459	3,855267
Aggregate X	-0,00555	0,002413	-2,29993	0,054996	-0,01125	0,000156

The intercept value (a) is 3,11 and the coefficient for employment in agricultural sector (b) is – 0,0055.

That is **$y = 3.11 - 0.0055\ x + error_i$**

5.4.2. Correlation coefficient

The correlation coefficient, R, ranges from -1 to +1.

Our results belong to the range 0 to 1 which means the two variables tend to increase or decrease together.

The r value is quite far from zero, there are four possible explanations:

· Changes in the X variable change the value of the Y variable.

· Changes in the Y variable change the value of the X variable.

· Changes in another variable influence both X and Y.

· X and Y don't really correlate at all, correlation is observed just by a chance. (Wonjae, 2010)

5.4.3. R squared

In this case:

R squared R^2 = 0,43, then 43 % of the variance in X can be explained by variation in Y. And 43 % of the variance in Y can be explained by variation in X.

5.4.4. Adjusted R square

In this case, its value is 0,35, which indicates that about 35 % of balance of trade agricultural products (India / EU) is determined by Nominal PSE and 65 % is determined by other factors.

5.4.5. P – Value (significance testing)

We then need to consider whether 3.11 and 0,0055 are significant or not. We can determine this by considering their p-values. The p-value for intercept is 0.00002 which says that the probability that the value 3.11 is produced by random chances is very low.

In statistics, the given value is significant if p-value is less than 0.05. (Wonjae, 2010) Looking at the p-values, we see that both coefficients are statistically significant.

5.5. Limitations of Methodology

5.5.1. Availability of data

There is a lot of data available to be used for purposes of this thesis. Nevertheless the data differ very often and significantly, depending on various sources. For example, trade statistics, published by the European Commission from the mutual trade with the SAARC countries, differ a lot from the data published by domestic trade statistics of respective EU's partners. Furthermore the trade data, set out in sources of all countries of South Asia, are based on fiscal years (July - June periods), not calendar years, as in Europe. Also auxiliary data, as for example GDP/GNI, share of labour workforce in agriculture sectors, share of the arable land, literacy etc., differ

significantly in various sources (Central Intelligence Agency, European Commission, FAO, WTO, OECD etc.), and even more significantly than those data for foreign trade exchange. This difference reaches up to 50 % (!) and data available are very often quite old (5-10 years), probably due to a population explosion in the countries like India and Bangladesh, and due to a difficult possibility to gain them in vast rural areas.

5.6. Hypothesis

By analysing relationship between balance of trade (selected countries and EU) in agricultural products and economic indicators (GDP, employment in agro sector) the results did not show any statistical significance. The results may be caused by the lack of explanatory variables, which were not present in our simple model.

In case of exports of rice from selected countries and Nominal Protection Coefficient (NPC) - rice and selected countries, the analysis results did not show any statistical significance s well.

Equation 4 should analyse if there is any relationship among India‘s agricultural balance of trade and Producer Support Estimate for agricultural products over time period of 9 years (1995 – 2003), computed on the basis of 11 main agricultural commodities. The results show, that there is a statistical significane among these variables, about 35 % of balance of trade agricultural products (India / EU) is determined by Nominal PSE.

Considering such results, the hypothesis “The balance of agricultural trade between selected countries and EU depends on economic factors and producer support and is influenced by trade policies protection“ **was disproved.** Such results indicate that there is not significant impact of CAP and its policies to South Asia region.

The results indicate that the balance of agricultural trade between India and EU is by some value determined by Nominal Producer Support. The author considered

analyzing the values of Producer Support Estimate (PSE) of all SAARC countries, but it was not possible due to unavailability of such data in available sources.

6. DISSCUSSION

CAP's supporters say that if Europe wants to maintain the rich diversity of its rural areas and keep people on the land then it must carry on subsidizing farmers. Many smallholders work long hours, earning less than the average income, and without the CAP they would go out of business. The number of people working on farms roughly halved in the 15 older EU member countries between 1980 and 2003. About 2 % of farmers leave agriculture every year across the EU – and in some countries the number is higher. Their role is however vital in safeguarding the character of Europe's countryside – and often mountain areas are also the most precarious for the rural economy. Meanwhile, a growing number of farmers are over 50 years old, so the EU has to provide a financial incentive to attract younger people into farming, just through the CAP. Globally, CAP supporters say, can Europe's surpluses ease food shortages in the developing world. Food security and availability has become a pressing issue again since food prices soared in 2007-2008. Global warming and overpopulation are increasingly squeezing food resources in many regions.

Nevertheless, even the CAP's supporters agree that there is still much to be improved. Critics claim that the CAP encourages EU agricultural producers to export huge amounts of food-products, which are sold for prices that poor farmers from DCs cannot compete with. So the CAP is seen as an unfair system influenced in favour of the richer countries. Another criticism is that the CAP costs enormous sum of money each year – when agriculture generates just 1.6 % of the EU's GDP and employs only 5 % of EU citizens (around 25 million) (BBC News Europe, 2011). Critics say, too, that with stagnating Europe's economics within a last period, and under pressure of rivalry from China and India, it is not necessary to pay so much into farming. Financial means should be transferred more to agriculture research (innovation), technology (energy) and climate problems, from which could benefit just developing countries.

Also latest reforms of the CAP attract a wide range criticism, especially from Great Britain and Poland. Both specialists and ordinary people think that the new proposals

do not help in this situation of global problems - food security, economic insecurity and environmental issues. Trade campaigners have already expressed their concern at the impact on poor countries, too. Continuing high subsidies in Europe keep prices of food and products artificially low, mainly for grain traders, so developing country farmers cannot compete further on. African and Latin American countries are particularly negatively affected by the CAP, SAARC nations not so much, nevertheless they are home of full 40 % of the world's poorest people. Even with the removal of the most distortive CAP instruments Europe seems to be still the main beneficiary.

Despite of 25 years of reforms, CAP costs still over 48 billion pound a year (107 pound per capita in the U.K.) in subsidies to farmers, but still the food is again 15 % more costly and the U.K. is still food importing country. Every British family faced 2,000 pound higher food expenses in 2011. Every European government - in the last 40 years - has tried to reform the CAP, but in vain. Smaller farmers have been badly hit, CAP money bleeds taxpayers twice – in subsidies and higher food prices, on the contrary further props up rich farmers. CAP has been, in fact, almost disaster for African and other developing world, ecological calamity due to enhanced use of chemical fertilizers and pesticides continues. Almost a half of the EU budget goes into agriculture which makes up only 1.6 % of the EU's GDP, what leads only to keeping artificially high food prices. It would be wiser to suppress the domestic production and import much more food from African and Asian countries instead of further absurd support to the EU's agriculture.

The Czech Republic's dairy export can serve as the example of the "international dumping of the CAP". It currently holds a position of the major exporter of the skimmed milk powder into Bangladesh. Reducing the world price of milk by 2.5 euro, caused by the EU's export subsidy agreed in 2009 and reaching 5 euro per 100 kg of milk, affected significantly lives of more than 5 million Bangladeshi inhabitants. Price reduction decreases income of local households, dependent on that small-scale production, by 7 – 16 %. For poorest families with typically 5- 6 members, two cows

and limited access to any other form of employment, this price fall means even endangering of daily purchases and impossibility to send children to school.

Indian government found from data, taken between 2002 and 2006, that more than 17,500 Indian farmers committed suicide every year. In Andhra Pradesh state alone, more than 500 farmers committed suicide in 2007. Some farmers decided to selling their kidneys, too, in order to pay off their financial debts. This sad phenomenon can be attributed to a multiplicity of factors, which contain, besides of drought, crop failure, genetically modifies seeds, oil subsidies, also cheap unfair competition from the side of the highly subsidized U.S. cotton production. In short – farmers not only in India - are unable to make a living from their crops.

SAARC association seems to be quite heterogeneous commonwealth compare to the EU. This fact is seen also on the trade statistics with EU 27. Nepal and Bhutan are still a little remote from the rest of the world, and even other SAARC members, due to their landlockedness and traditional style of life. However, quite weak intra-SAARC trade relations, due to some different political view and disputes (for example just very different level of state subsidies to agriculture) will probably be an obstacle in the future, too.

The agriculture in SAARC member countries is subsidized, but definitely not in the extent performed in EU countries. Also not on a basis of the area farmed (acreage) or the volume of a production, but only as subsidized prices of agriculture inputs (most fertilizers and irrigation). The subsidy in India, for example, is also high and rose from 1.7 % of the total budget expenditure in a fiscal year 1970-71 to more than 10 % in 1980-81; remains stable during following decades. In the fiscal year 2009-10, total subsidies were 15.42 billion euro (ca 6 % of the GDP formed by the agriculture), from which fertilizer subsidies reached a value of 14.2 billion euro and were included in their lower final price (subsidy formed 39.9 % of fertilizers' price). Irrigation subsidies were cancelled in the fiscal year 2008-09 in India. If compared the EU subsidies (43 billion

euro in direct payments to 25 million labour workforce in the agricultural sector) and in India (15.42 billion Euro to 605 million labour workforce), the EU's per capita subsidy reaches the amount of 1.720 euro, while India's per capita subsidy is only 25.5 euro.

Relatively high agriculture subsidies in India recall problems even in other SAARC countries, for example in Pakistan. Representatives of farmer organizations have asked the federal government to either give subsidy of 93.5 euro per acre to growers on various inputs or impose 3.12 euro per 40 kg regulatory import duty on Indian produce to ensure level playing field against highly-subsidised Indian agriculture sectors (1 euro = 128.3 Pakistani rupee).

Sri Lanka gives subsidies to fertilizers for paddy farmers, too (since 1962). The intention has been not only encouraging the use of fertilizers but also off-setting the effect of low crop prices and high costs of its production. The government pays a subsidy to importers of fertilizers to cover the difference between the fixed price for farmers and costs of the import. In 2010, the price of a 50 kg bag of fertilizer (urea) was reported as just 2.36 euro, a subsidy formed 93 %. Total cost to Sri Lanka's government has risen to 438 million euro, or 3 % of GDP formed by the agriculture.

There are identifiable effects of the CAP on developing countries that are likely to have an impact to their development. These effects are surely complex, not immediately obvious and vary over time. They need to be monitored therefore. As no suitable and precise mechanisms currently exist, one needs to be finally established.

7. SUMMARY

Due to a recent decreasing (India) and more or less stagnating (all other members) share of the EU in the foreign trade of almost all SAARC countries, the importance of the European Union as a trading partner for South Asian countries cannot be overemphasized. As such, democracy building and human rights development, which are key objectives in the EU's relations with third world countries, need to be appreciated. European Union has endeavoured to achieve its democracy and human rights development objectives by including some conditionality clauses in its trade agreements with South Asia. However, the EU's policy lacks consistency in its application; political, strategic and trade interests often take precedence over its objectives on democracy building and human right advocacy. That policy has not been very effective, as seen. From a South Asian perspective, democracy and human rights provisions have often amounted to punitive clauses rather than incentives to strengthen democracy and human rights. Including democracy building and human rights in the EU's trade policy with South Asia may not be correct way to move forward.

The Common Agricultural Policy has always been the EU's most controversial policy. Many attempts to reform it have been done, but every time with only a limited success in reducing its high costs. At the same time it made Europe's food prices some of the highest in the world. The CAP remains controversial even after its still lasting New Reform implementation. Its impacts on EU's external trade, the agricultural production and environments in Developing and Least Developed Countries are not significant in general terms, while the impact of especially direct subsidies (Pillar 1) to farmers in DCs and LDCs remains almost devastating. The impact of the CAP to SAARC nations has not been an exclude. This is further illustrated by results from a model studies using various modelling methods. On the contrary, the effect of Generalised Scheme of Preferences has been extensile positive and highly desired to be widened further on. Preference erosion of the GSP is not a good reason in itself to stop the

trend towards multilateral liberalization, but how to offset the adverse effects for the affected countries needs specific consideration, including possible compensation. Such a specification is not fully known yet however.

Due to results stated above it is highly desired that the CAP expenditures should be significantly reduced. Recommended scenario could be to cancel the whole Pillar 1 (direct payments) and transfer all gained means to support the agricultural sector of Developing Countries, parallel with a strong EU's support and co-operation by enhancing and fixing political stability & anti-terrorist measures in those countries. By that way the agricultural production in DCs could significantly increase its outputs and widely extended export of cheap food and other agricultural products could saturate EU's market instead of the expensive domestic production. Major part of the rest of financial means inside the CAP's budget should be used preferably for the agricultural research, innovation, biodiversity technologies, "greening" and reducing consequences of climate problems. Negative impact of such a massive production transfer from Europe to DCs could be reduced by orienting European farmers to that innovation programmes or to fulfil a role of guardians of the countryside. As stated before, the number of EU's farmers constantly falls and their average age is over 50. So let they finish in peace their life-mission, but let the every new generation of young farmers is gradually reoriented to "hi-tech" serving of mass production of food in DCs, wildlife protection, landscape treatment and improving other desired activities with much higher affectivity than their farming has been so far. That reorientation of major part of those 25 million European farmers & allied labour workforce would be surely less painful than further devastation of the agricultural sector with billions of farmers and agricultural workers in developing countries. Well the modern world is a global mutually connected village.

The result of this new uncommon agricultural philosophy could be in short expressed by the following slogan: "Buy from South!

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9. APPENDIX

9.1. Data sets of the model

	Population (million) 2011	Population density (per sq. km) 2010	GDP per capita (USD) 2011	Agricultural land (% of total) 2009	Rural population (% of total), 2011
Afghanistan	35,32	53	453	58	76
Bangladesh	150,5	1142	743	70	71
Bhutan	0,74	19	2346	13	64
India	1 241,50	412	1489	60	69
Maledives	0,32	1053	6405	27	59
Nepal	30,5	209	619	30	83
Pakistan	176,7	225	1189	34	64
Sri Lanka	20,9	329	2835	41	85

Source: World Bank http://data.worldbank.org/indicator

2011	net agricultural Imports from EU 27 (million euro)	net agricultural Exports to EU 27 (million euro)	Balance of trade agricultrual products (each country)	GDP in Agro sector per capita (euro)
			y	x
Afghanistan	121,7	20,3	-101,4	279,9
Bangladesh	149,7	321	171,3	266,4
Bhutan	0	0,7	0,7	664,4
India	904	3173,3	2269,3	508,8
Maldives	26,6	71,5	44,9	493,5
Nepal	10,2	2,6	-7,6	308,1
Pakistan	347,5	374	26,5	376,2
Sri Lanka	82,9	328,9	246	646,9

Source: DG trade statistics, www.trade.ec.europa.eu, 2012

2011	net agricultural Imports from EU 27 (million euro)	net agricultural Exports to EU 27 (million euro)	Balance of trade agricultrual products (each country)	Employed in Agro sector(%)
			y	x
Afghanistan	121,7	20,3	-101,4	66,6
Bangladesh	149,7	321	171,3	43,6
Bhutan	0	0,7	0,7	54,7
India	904	3173,3	2269,3	51
Maldives	26,6	71,5	44,9	11,5
Nepal	10,2	2,6	-7,6	65,7
Pakistan	347,5	374	26,5	43,6
Sri Lanka	82,9	328,9	246	31,3

2000	Export of rice (thousands of tonnes)	Nominal Protection Coefficient (NPC) for selected Food Crop (rice) nad Selected Countries
	y	x
Bangladesh	0,7	1,17
India	1532,6	0,76
Pakistan	2016,27	0,96
Bhutan	0,08	1,15
Maledives	N/A	N/A
Afghanistan	N/A	0,61
Sri Lanka	N/A	N/A
Nepal	N/A	0,63

Source: World Rice Statistics
www.irri.org

	Balance of trade agricultrual products (India)	Nominal PSE (India)
	y	x
1995	3,284615385	61,4
1996	3,8	-32
1997	3,330769231	-47,6
1998	1,892307692	101
1999	1,476923077	134,5
2000	2,761538462	235
2001	1,992307692	171,2
2002	2,284615385	126,6
2003	2,353846154	125,1

Source: UN, UN Comtrade database, http://comtrade.un.org, 2013