The Annan Plan for Cyprus as a Prisoner's Dilemma Game

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Abstract: The Annan Plan for Cyprus was presented to the Greek and Turkish Cypriots for approval by simultaneous referendums held on 24.04.2004. The plan was anticipating a unified Cyprus. It was rejected by the Greek side so could not put into affect. This paper analyses the Annan Plan in relation to the Prisoner's Dilemma Game from a psychological perspective. It is concluded that contrary to what the dilemma suggests, it is always advantageous for the Turkish to cooperate. The fundamental elements of the cooperation, such as effective communication, genuine perception, mutual trust and willingness to solve the problem are missing in the Cyprus case. Also the *United Cyprus Republic* which was aimed in the Annan Plan was not a desired solution especially for the Greek Cypriots. In order to establish a peaceful resolution to the conflict a cooperative strategy which was adopted by both parties is necessary.

Key Words: Cyprus, Annan Plan, Prisoner's Dilemma Game, conflict resolution, psychological perspective.

The Topic

The aim of this paper is to analyze the applicability and appropriateness of the Prisoner's Dilemma Game to the Cyprus Conflict and more specifically, to discuss it in accordance with the rejection of the Annan (UN) Plan. The decisions of the two sides –the Turkish Cypriots and the Greek Cypriots- will be examined in relation to their cooperative and/or non-cooperative (competitive) behaviours. However, it should be also added that the rather than the detailed mathematical features of the Prisoner's Dilemma Game the psychological features of the game would be covered in this report. Hapjipavlou (2007: 349) stated that in the Cyprus Case psychological factors are equally significant as the legal and political factors. The simplest form of Prisoner's Dilemma will be used in order to analyze the outcomes of the Annan Plan referendum.

The Cyprus Conflict

The Cyprus Conflict has been on the agenda of the international community for over four decades. The Ottoman Empire conquered the island in 1571 and

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ruled it until the advent of the British in 1878. So, constituting one fifth of the population, the Turkish Cypriots have never regarded themselves as a minority. According to Greek Cypriots, on the other hand, the island has been Greek since their forefathers arrived to the island from the Aegean around 1300 BC. Between the years 1878 and 1914 Cyprus was administered by Great Britain while technically remaining under the Ottoman sovereignty. When the Ottoman Empire had entered the World War I on the side of Germany against Britain, Great Britain unilaterally annexed Cyprus. Following the independence war, the new country, Turkey signed the Treaty of Lausanne in 1923 whereby the status of Cyprus was accepted as a crown colony of Great Britain (Dodd 2005: 40, Salem 1992: 117). The Greek Cypriots, however, believed that they have the right of self-determination, and indeed, the right to union with Greece. In 1960, the 'independence' formula (Dodd 2005: 40) was developed as a result of Greek. Turkish and British compromise without the participation of the people of Cyprus (Polyviou 1976: 582, Gobbi 1993: 23). Enosis (becoming union with Greece) was banned and the island was divided; this was actually what the Turkish Cypriots asked for, however the government did not work well and violence broke out (Dodd 2005: 40). According to Polyviou (1976: 582) the 1960 constitution failed to resolve the conflict but exacerbated it further, due to its artificial and rigid structure. In 1974, as one of the Guarantor Powers of the 1960 settlement, the Turkish army intervened in order to prevent the enosis. As a result, 150,000 Greek Cypriots fled to the South and the Turkish Cypriots left in control of the thirty seven percent of the island (Mehmet 1992: 169, Dodd 2005: 41). Even though, the Turkish government considered the treatment as Cyprus Peace Operation the Greek side regarded such detention as an illegal invasion. On February 13, 1975, Mr. Denktas, the Turkish Cypriot leader proclaimed the creation of an independent state in the occupied territories (Polyviou 1976: 583). Turkish Republic of Northern Cyprus [TRNC] was founded in 1983 but was never recognized as a sovereign state by the international community, except Turkey. In line with the international law, TRNC does not exist as a legal state (Dundas 2004: 88, 90). Because of the disclamation of international community, the social, political and economic aspects of Northern Cyprus are substantially depended upon Turkey. Many attempts had been made to resolve the conflict. In 1990, the Republic of Cyprus applied to join the EU (Müftüler-Bac and Güney 2005: 285), this was a point when, one more time, the Eastern Mediterranean island called the attention of the international community. The Republic applied on behalf of the whole island because that is the territory over which it claims jurisdiction but in effect only the southern part of the island was going to join the Union. Turkey did not favour the Southern Cyprus's (Turkey is not recognizing 'The Republic of Cyprus') acceptance to the EU until the conflict is resolved permanently. So, the application threatened to strain EU's relations with Turkey, which is a very important trading partner

and an important bridge between the west and east. On the other hand, Greece was threatening the enlargement of EU by vetoing the application of other candidate states if the application of the Republic of Cyprus was denied on the basis of the conflict (Nugent 2000: 138, 144). Due to these reasons; UN Secretary-General, Kofi Annan proposed a plan to both parties (the Greek Cypriots and the Turkish Cypriots) with an aim of permanent resolution to the conflict. The settlement anticipates 'The United Cyprus Republic' with two constituent states of equal status. The new state was going to have 2 official languages, 4 flags and 3 anthems. It was presented to both sides for approval by simultaneous referendums held on April 24, 2004 (Newspot 2004, United Nations 2004). Sixty five percent of the Turkish Cypriots voted in favour of the plan in spite of the clear disapproval of President Denktaş; 76 percent of the Greek Cypriots rejected it, on the advice of President Papadopoulos (Dodd 2005: 39).

The Prisoner's Dilemma Game

The Prisoner's Dilemma is an extensively discussed topic in a wide range of disciplines including economics, philosophy, business and psychology. In the simplest form it occurs as follows: A serious crime was committed and there were two suspects. The persecutor puts them in separate cells where they can not communicate. He makes them the same offer. 'You may choose to confess or remain silent.' He also points out that he does not yet have enough evidence to convict either of them for the committed crime but he does have evidence which will convict both of lesser crimes. If one of the suspects confesses and the other remains silent he will drop all charges against him and use that testimony to ensure that his or her accomplice convicts the serious crime. Similarly, if the accomplice confesses while the other suspect remains silent, he or she will go free while the other gets the imprisonement. If both of them confess, they both get an early parole. On the other hand, if they both remain silent, they will both charged but with lesser crimes (see Table 1) (Worchel, Cooper and Goethals 1991: 329). It is also possible to visualize the Prisoner's Dilemma Matrix in terms of monetary values, i.e. each party loses or wins money according to the decision of the other player (see Table 2). The important feature of the matrix is that, the reward of the defection should always be greater than the reward of cooperation. Also, the punishment should be the harshest when one of the sides cooperates but the other does not.

Table 1: Matrix Representation of Prisoner's Dilemma

<u>Not Confess</u> <u>Confess</u> <u>Not Confess</u> 4 years, 4 years Freedom, 99 years <u>Confess</u> 99 years, Freedom 20 years, 20 years

(Worchel, Cooper and Goethals 1991: 329).

Table 2: The Prisoner's Dilemma Game

Α		
<u>Cooperate</u>	Defect	
Cooperate+30.000 TL (R), +30.000 TL (R)	-100.000 TL (S), +100.000 TL (T)	
В		
Defect +100.000TL (T), -100.000 TL(S)	-50.000 TL (P), -50.000 TL (P)	

R: The payoff to each player when both players decide to cooperate.

S: The payoff to the cooperating player when the other player chooses to defect.

T: The payoff to the defecting player when the other player chooses to cooperate.

P: The payoff to each player when both players decide to defect.

The following inequality should be satisfied: T >> R > P > S

(adapted from Rapport and Chammah 1965: 34, 37).

The paradox that has lied in Prisoner's Dilemma is a mixed-motive situation (Worchel, Cooper and Goethals 1991: 328). If they both choose to remain silent, they will both get punished for lesser crimes; however if one is to choose silence but the other to confess, the confessor will go free but the other gets the harshest possible sentence. Thus; 'to confess' will be the safer response although it may not be resulted with the best possible outcome (Kuhn 2003). The mixed- motive situation in the dilemma is the decision of cooperation or competition. As competition gives the chance of freedom, cooperation may result with a 'tragedy' for the player who chooses that strategy. As Deutsch and Krauss (1965: 123) suggested in a situation like this, what each person believes about the other's motivation, may influence their decisions.

Application of the Prisoner's Dilemma Game to the Cyprus Conflict

As an international conflict, it is hard to analyze the Cyprus Problem in accordance with the Prisoner's Dilemma Game, initially because, like the most other international conflicts, it does not have a clearly defined two-party, two-choice structure (Lumsden 1973: 8). Together with the two groups in Cyprus; Turkey, Greece, Britain, UN and the EU are the inevitable parts of the conflict. However, the particular emphasis of this paper is the referendum in which the ultimate decision was made by the two central parties; the Greek Cypriots and the Turkish Cypriots. So, together with the three other possible outcomes and the actual outcome of the referendum could be a proper basis to discuss the Cyprus Conflict in the context of the Prisoner's Dilemma Game. Barash and Webel (2002: 310) discussed that the Prisoner's Dilemma may be an unduly pessimistic approach, since it

assumes states (or individuals) have only two choices. This perspective can be valid in other circumstances but in this case, like in every other referendum; in the UN Plan referendum the states had only two choices.

Applying the Prisoner's Dilemma Game to the real world situations was criticized in the sense that people can actually choose and change their partners (Tullock 1999: 456, Iyori and Oda 2003: 1). Hauk and Nagel (2001: 770, 771, 772) stated that firms choose suppliers, people choose friends and even criminals choose their partners in crime. However, you can not choose your neighboring country or you can not choose 'the other' (Spyrou 2002: 257) side, so with its original version the Prisoner's Dilemma Game is an appropriate ground to discuss the Cyprus Conflict.

Loizides (2002: 430, 433) discussed that the cooperation of the parties would provide a settlement in Cyprus. The united Cyprus would enter the EU which is actually beneficial for the Turkish Cypriots. It would decrease the Greece-Turkey tensions and Turkey would come close to its EU goal. If both parties decided not to cooperate, both will be responsible for the non-settlement, and EU's interest in the Eastern Mediterranean would decrease. On the other hand, the Greek Cypriots would still have the right to enter the EU. If the Greek side would cooperate but the Turkish side did not, since they would be responsible for the non-settlement the EU would prevent reprisals and Cyprus would join the EU as the 'Greek Cyprus.' He further argued the forth -the actual- outcome and stated that if Turkish side would cooperate but the Greek side did not, they would be responsible for the non-settlement. In that case, he claimed that Turkey might have increased its threats for reprisals but would affect its own accession process negatively.

The possible outcomes and the actual outcome of the UN Plan referendum are shown in Table 3. Since the referendum is a relatively recent event it is not possible to foresee the all long-term outcomes of the decision. However, since the UN Plan was seen as chance to resolve the Cyprus Conflict by the international community, it would be acceptable to assume that *The United Cyprus Republic* was going to be a solution to the problem.

In the Prisoner's Dilemma Game, if both parties cooperate, they get a light punishment or a smaller reward (see Table 1 and Table 2, respectively). In the Cyprus Conflict the reward would be the establishment of 'The United Cyprus Republic' which would bring the EU membership to all Cypriots and a permanent resolution to the conflict (see Table 3, cell (a)). It was predicted as a result of the cooperation of both parties. However, this is not *maximum utility option* in Prisoner's Dilemma. In other words, with deciding on a cooperative strategy both players of the game would sacrifice. In the actual case, Greek Cypriots would sacrifice from their internationally-recognized state and they would have to accustom themselves to a new life style. Lumsden (1973: 9) argued that the most desired outcome of the Greek

Cypriots is enosis; so if that is the case with cooperation they would also have to forget about becoming union with Greece. The Turkish Cypriots, on the other hand, would have to accustom themselves to a new life style and they would also lose the chance of taksim (dividing the island) which was perceived as their most desired outcome (Lumsden 1973: 14). However, the modest outcome in the Prisoner's Dilemma (the result of cooperation) was not going to be a small one for the Turkish side: this was going to be the chance of having an internationally-recognized state and getting the EU membership. The reward for the Greek Cypriots would only be the permanent resolution of the conflict which is a relatively minor one, as compared to the Turkish Cupriots. On the other hand, this outcome could be evaluated in a more positive sense, in accordance with the first example of the Prisoner's Dilemma Game (see Table 1). If both parties would cooperate; they would end up with the resolution of the long lasting conflict and come to a permanent solution, but it was going to take some time to adapt the new circumstances. (The time that is necessary for the adaptation is the 4 years imprisonment in that situation, see Table 1).

TURKISH CYPRIOTS (T/C)

	<u>Cooperate (YES)</u>	Not Cooperate (NO)
<u>Cooperate</u> (YES)	Foundation of 'The United Cyprus, Republic', EU membership for the whole island, Resolution of the Conflict (a).	T/C is responsible. G/C joins the EU (b).

GREEK CYPRIOTS (G/C)

Not Cooperate *G/C responsible. G/C joins the EU (c). Both responsble.G/C joins the EU (d).

* The actual outcome of the referendum held on 24.04.2004.

(adapted from Loizides 2002: 433).

The non-cooperation of the both sides would be resulted with the 20 years imprisonment or a punishment of 50.000 TL (see Table 1 and Table 2, respectively). In the Cyprus problem, if that was the case, both parties were going to be responsible for the non-settlement but in any case the Greek side would join the EU and not lose much especially as compared to the Turkish side.

If one of the players chooses to cooperate but the other does not, the cooperative player comes across with the worst possible outcome, 99 years imprisonment or a punishment of 100.000 TL (see Table 1 and Table 2, respectively). In the Cyprus Conflict, if the Greek Cypriots was going to choose to cooperate but the Turkish Cypriots was not, in fact, the reverse was going to occur. Since the Greek side joined the EU and the Turkish Cypriots was going to be responsible for the continuation of the conflict (see Table 3, cell (b)), they would be the worse off. So, regarding the current decisions of the Greek Cypriots (they do not want to have a unified state) this was going to be the best possible outcome for them.

The actual result of the referendum is shown in Table 3, cell (c). The Turkish side cooperated but the Greek side did not, in these circumstances, the Prisoner's Dilemma Game suggests that the Turkish Cypriots would be worse off, 99 years imprisonment or a punishment of 100.000 TL (see Table 1 and Table 2, respectively). However, in the real conflict, although they could not join the EU, they used this opportunity to show that they are line up with the *peace*. They also got the advantage of claiming the abolition of the social, economical and political isolation. So, in contrast to what the dilemma suggests, it was not the worst possible outcome for the Turkish Cypriots. In contrast to the principles of the Prisoner's Dilemma Game it was not the best outcome for the Greek Cypriots either.

James (1998: 214) suggested that in the Prisoner's Dilemma Game, it is the person's advantage to defect regardless of what the other player does; in fact, this is the point where the dilemma comes from. However, this was not the case for the Cyprus Conflict, especially for the Turkish Cypriots; their cooperation was going to either open the doors of the EU for them or at the very least give them an opportunity to show their desire for peace. On the contrary, if they had said no in the referendum, it was not going to bring more than maintaining the position. (Even making it worse, especially if the Greek side had cooperated). Therefore, for this specific case, Prisoner's Dilemma works in the opposite direction. It was always advantageous for the Turkish side to cooperate. In addition, it was always advantageous for the Greek Cupriots to maintain the situation and say no in the referendum. because in any case they were going to join the EU. At least in the short run, there was not any foreseeable negative outcome that the Greek Cypriots had confronted. What we have experienced so far confirms this claim. The Greek Cypriots join the EU but the Turkish Cypriots are '... struggling with the non recognition from the international arena, an underdeveloped economy, high unemployment rates, as well as mixture of controversial, cumbersome, unpredictable yet rarely positive political state of affairs' (Hüsnü 2006: 116).

Loizides (2002: 430) was putting forward the argument that there are two important conditions for cooperation to occur. Initially, cooperation will

occur when the rewards for cooperating are high and penalties for noncooperation are sharp. As discussed earlier, this is the case for the Turkish Cypriots but not for the Greek Cypriots. Secondly, cooperation will occur when it is not beneficial to cross a rival with whom one expects to deal over a prolonged period. Although this statement fits well to the conflict since the two sides have to share the island in any case, as Loizides (2002: 430) suggested rational choice might not always address the major puzzle in Cyprus.

Camp (1980: 63) indicated that federal central government linking the Greek Cypriot and the other Turkish Cypriot, into a single polity with sovereign powers could be the answer to the problem. Such a solution would require three prerequisites for success: it must be negotiated, not forced upon either community; it must be aided by active pressure from friendly foreign powers; and the negotiations must take place under the support of the UN Secretary-General. Camp's (1980: 69, 70) solution is actually very close to the UN Plan which offered a unified government. It was widely negotiated (although the negotiations were not very effective), supported by the international community and it was not obligatory for either of the parties to accept the plan. However, it did not work because it did not present high penalties for the Greek side (as it did for the Turkish side) in the event of noncooperation.

Deutsch (1973: 17, 1983: 6) also discussed two different types of conflict. A conflict is constructive if the participants think that they are satisfied with the outcomes of the conflict. Similarly, a conflict is destructive, if the participants think that they have lost as a result of conflict. Competition leads to destructive conflict. However, although competition is a necessary condition for destructive conflict it is not sufficient. According to this argument an external conflict persists because of the internal needs. For instance, former Turkish leader, president, Denktaş (who was against the Annan Plan and retired on 24.04.2005) was sometimes accused of using the conflict as an excuse for the economical and social problems. The same could also be argued for the Greek side.

Solutions to the Cyprus Conflict & Recommendations

It is also stated that as opposed to the Prisoner's Dilemma situation, communication is possible in real life conflicts (Tullock 1999: 457). However, to be able to communicate does not mean that the two sides will come to a conclusion. The Greek Cypriots and the Turkish Cypriots had endless number of meetings but in the end they could not come to a solution. For instance, Lumsden (1973: 15) suggested that it could be possible to assume the Cyprus Conflict as a nonnegotiable game since there is little or no progress towards resolving the dilemma. Today, it is still possible to hold the same assumption since the conflict persists. In

accordance with that, Deutsch (1983: 7, 2002: 311) suggested that while effective communication leads to cooperative outcomes; competitive processes result in impaired or poor communication.

In addition to communication, perception is another key element in social relationships. Perceived similarities would bring cooperation (Deutsch 1973: 29). Dundas (2004: 86) stated that the two communities in Cyprus are different in terms of language, religion and political identification which make the cooperation difficult.

There are studies which suggest it is possible to form a social unit even between two people who share nothing more than a common birthday. In a Prisoner's Dilemma experiment, the participants who believed that they had the same birthday with the confederate cooperate more than the control participants who did not get such information (Miller et al. 1998: 475, 479). Living in the same territory, sharing a history and a culture, the Cypriots have enough in common to form a unified country. One of the reasons that make them unwilling or unable to resolve the conflict may be the *cognitive rigidity* that both parties hold which provides an oversimplified outlook to the issues (Deutsch 1983: 11). Actually, nothing, including the all possible outcomes of the referendum, is either black or white. However, if both parties had adopted a more flexible approach began to discuss the plan earlier they could come to a cooperative conclusion and did not miss 'the unique and historic chance to resolve the Cyprus problem' (Annan 2004).

For the Prisoner's Dilemma Game, it is argued that if one can not trust the other side, it is safer to choose to suffer minimum rather than taking the risk of maximum loss (Deutsch 1958: 270). Although the Greek Cypriots was not going to encounter with a maximum loss in any case, it could be discussed that because they could not trust the Turkish Cypriots, they chose to reject the UN Plan and put up with the international reactions. Dundas (2004: 86) also argued that the heart of the Cyprus problem is the mistrust between the two communities of the island. In accordance with that, Lumsden (1973: 19) claimed increasing the trust should have been one of the strategies which were applied to resolve the Cyprus Conflict. It was argued that the reason of the failure of the government which was established after the 1960 constitution was the distrustful attitudes of each side (Dodd 2005: 40). If an agreement is to be made sooner or later, trust would be the key ingredient of it. It should not be so difficult since we are talking about people who say 'we always got along together, we used to attend each other's weddings'. Therefore, it is possible to argue that it is the politicians and the politics that divided the island (Bryant 2001: 892).

Task orientation is another element of the conflict resolution processes. A cooperative process perceives the conflict as a mutual problem. On the other hand, a competitive process assumes that the solution can be achieved only

if one side imposed their desires to the other. For instance, if the Turkish Cypriots and the Greek Cypriots try to impose their most desired outcomes to each other -according to Lumsden (1973: 16) taksim and enosis, respectively- they would end up with competition. The 'Cyprus Peace Operation' or the illegal invasion done by the Turkish army in 1974 could be seen as an example to that situation. Although it was successful in terms of preventing the violence it divided the island and did not bring permanent resolution to the conflict.

Lumsden (1973: 24) argued that converting peace into a superordinate goal might be a solution to the problem. Although this should be the scope of another paper, the UN Plan could be seen as an unsuccessful attempt which aims to convert peace into a superordinate goal. In order to satisfy the criteria of the superordinate goal, the target should be desired equally by both sides and should require the contribution and sacrifice from both of them. In addition, it should be sufficiently compelling (Sherif 1970). In the present discussion the superordinate goal was the 'United Cyprus Republic' which is not probably very much desired by the Greek Cypriots.

Consequently, this paper aimed to discuss the UN Plan in accordance with the Prisoners Dilemma Game. The dilemma suggests that it is always advantageous for one side to defect regardless of how the other player acts. However, in relation to the Cyprus Conflict, this basic principle was confirmed only for the Greek Cypriots. For the Turkish Cypriots, on the other hand, it was always beneficial to cooperate. The fundamental elements of cooperation were missing in the Cyprus case. Effective communication, a genuine perception of the other side, mutual trust and willingness to solve the problem together (Deutsch 2002: 311) were the necessary aspects which would enable to solve the conflict. Even though the Greek Cypriots were the non-competitive side, it should not be considered that they were the guilty one. In fact, since the two sides could not establish an effective cooperation strategy and come to a collaborative conclusion, they decided to follow their self-interest. Paradoxically, following the self interest and coming up against a poor result is one of common outcomes of Prisoner's Dilemma Games (James 1998: 219).

After the rejection of the Annan Plan, it could be concluded that although one chance was missed, there is no barrier in front of the Cypriots to cooperate and end this long-lasting conflict. A peaceful resolution of the Cyprus Conflict will be beneficial for all parties.

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Tutukluluk İkilemi Oyunu Çerçevesinde Kıbrıs için Annan Planı

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Özet: Annan Planı 24.04.2004 tarihinde Kıbrıslı Türkler'e ve Rumlar'a aynı anda yapılan referandumla oylandı. Plan birleşik bir Kıbrıs Devleti kurulmasını amaçlamaktaydı. Rum tarafınca reddedilen plan yürürlüğe giremedi. Bu çalışma, Annan Planı'nı Tutuklunun lkilemi Oyunu çerçevesinde psikolojik bir bakış açısıyla ele alıyor. İkilemin iddia ettiğinin aksine referandumda işbirliği içinde davranmak Kıbrıslı Türkler'in her zaman yararına bir sonuç doğurmaktaydı. İşbirliğinin temel ilkelerinden olan etkili iletişim, içten bir algılama, karşılıklı güven duyma ve sorunu çözme arzusu Kıbrıs meselesindeki eksik unsurlardır. Bunun yanında, Annan Planı'nın amaçladığı, *Birleşik Kıbrıs Devleti* özellikle Kıbrıslı Rumlar'ın istediği bir çözüm de değildir. Bahsedilen çatışmaya barışçı bir çözüm bulmanın tek yolu her iki tarafın da uygulayacağı işbirliğine dayanan bir çözüm bulmaktan geçmektedir.

Anahtar Kelimeler: Kıbrıs, Annan Planı, Tutukluluk İkilemi, çatışma çözümü, psikolojik bakış açısı.

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План Аннана относительно Кипра в рамках игрыдилеммы заключенного

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Резюме: План Аннана относительно Кипра был вынесен на референдум одновременно греческим и турецким киприотам 24.04.2004 г. Целью данного плана было создание единого Кипрского государства. План был отклонен греческой стороной, поэтому не был претворен в жизнь. Эта статья анализирует план Аннана как игру-дилемму заключенного с психологической точки зрения. Несмотря на утверждение диллемы, сотрудничество по референдуму всегда было на пользу турецким киприотам. Эффективная коммуникация, подлинное восприятие, взаимное доверие и готовность к решению проблем как фундаментальные элементы сотрудничества являются недостающими элементами в разрешении проблемы Кипра. Но вместе с этим, создание объединенного киприотского государства согласно плану Аннана, не является желательным решением и для греческих киприотов. Единственным путем для принятия мирного решения данного конфликта является выработка совместного решения лля претворения в жизнь обеими сторонами.

Ключевые Слова: Кипр, план Аннана, дилемма заключенного, решение конфликта, психологическая точка зрения.

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