THE IMPACT OF POLITICAL CONNECTIONS ON THE ALLOCATION OF DEVELOPMENT PROJECTS IN FAISALABAD

By

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Abstract

Development related funding is critical for the long-term growth of any country, but the allocation of funds between politicians and different areas can vary due to various factors and one important factor is the connections of politicians with those who approve or allocate these funds. This thesis attempts to determine whether the strength of political connections impacts the allocation of development schemes across politicians in the Faisalabad district of Punjab. Some of the questions we answer are: Do politicians favor their own constituents with higher budget or more popular development projects? Does the allocation of development funds impact the decisions of voters in elections? Also, are there any differences in the popularity of projects, budget of projects and popularity of projects approved by the local government as compared to district and provincial government? Data on developmental schemes from the Faisalabad district has been used to answer these questions. The data is from 2010-2016 with a total of 6900 development schemes and covers the 8 towns, 11 national assembly constituencies and 22 provincial constituencies of the Faisalabad district. The results show that strength of connection, electoral strength and party affiliation significantly impact the allocation of development funds in Faisalabad.

1. Introduction

Networks and connections can be very beneficial socially and economically specially in a country like Pakistan where you need strong contacts to get most things done. But even though having strong political connections and networks can be very beneficial for individuals, these connections can result in actions that are detrimental to society as a whole. Researchers have found that politically connected firms have poorer performance measures than other firms but still get bailouts (Faccio et al., 2006), while others have found that access to bank finance is an important channel impacted by political connections (Claessens et al. , 2008). Also, politically connected firms have been found to be more corrupt as compared to other firms (Chen et al., 2010).

The previous research on political connections has focused on their impact on firms, capital markets, preferential lending, banking, investment, the stock market, etc. This thesis tries to measure the political connections among the politicians and how these connections affect the allocation of funds and developmental schemes at the local level in a large district of Punjab, Pakistan. The development funds in Punjab are allocated through different channels and sources like the provincial government, the central government and the local government. In the development funding process, members of the Provincial Assembly (MPAs) and members of the National Assembly (MNAs) must propose their schemes while the government evaluates these schemes, so strong political connections can play an important role in the approval of projects. This thesis explores the impact on the allocation of fund of stronger political connections between (i) elected politicians and the provincial government (Chief Minister, Provincial Ministers etc.), (ii) elected politicians and the central government (the Prime Minister, Federal Ministers, etc.) and (iii) the MNA and the two MPA's that share the same constituency.

This thesis also analyzes whether (i) better projects are executed in areas where politician get more votes, (ii) whether projects are approved according to popular demand, (iii) whether there are any differences in the budget of projects and popularity of projects approved by different levels of the government i.e. the local government, district, provincial and central government (iv) Lastly, this thesis attempts to see whether the popularity of projects such as the building of schools, dispensaries, mosques, parks, construction of roads, sewage and soiling etc. executed in constituencies impacts electoral outcome.

The thesis is divided into five different sections. The next section looks at the previous literature on how political networks are formed and their importance, the role of political connections and how the policies or actions of politicians impact the decision of voters. The third section provides detailed information on the methodology being used and gives a description of the data and the econometric models estimated. The fourth section contains the empirical findings of the thesis and the last section presents conclusions.

1.1 Rationale of Study

The previous literature on political connections does not shed much light on how political connections are important among the politicians and their own political party and how connection between politicians helps in the approval of proposed projects and schemes. So, this study aims to look at how the strength of political connections impacts the decision of politicians in power. Do the politicians favor their own supporters and voters by executing more popular projects in areas where they get more votes and do executed projects impact the decisions of the voters?

1.2 Scope of the study

This study intends to look at how the strength of political connections affects the type of development project a politician has approved. Further it also aims to look at whether politicians execute projects for the sake of votes and how this affects electoral outcomes. In this study the data being used is at the district level and comprises of the ADP development data of district Faisalabad, Punjab which has information on developmental projects executed from 2010-2016. The Faisalabad district has the national assembly constituencies from NA75 - NA85 and the provincial constituencies from PP51 - PP72, and the MNA's and MPA's from these districts execute different schemes through different programs approved by local, provincial and central government depending on the cost of the project. The data on elections, votes, party affiliations etc. is gathered from the Election Commission of Pakistan and the strength of political connections is measured using surveys that determine links based on two factors i.e. political and non-political factors.

1.3 Research Gap

Significant work has been done on social networks in recent years. Some of the major contributions analyze how social networks are formed, different models of social networks, how these networks are helpful in your social and economic life, and how advantageous these networks are for the economy as whole. Some papers have also tried to establish how social networks impact political connections and political choices. There is less literature on the political economy aspects of networks and most of the work is on how political connections help different firms and organizations in earning more profits and how having political connections of firms ends up in the inefficient allocation of resources. This thesis tries to see if the connections of politicians with the provincial and central government help

the MNA's/MPA's get more high budget developmental schemes, and if there is any difference in the popularity and budget of projects approved by the TMA's, as compared to the popularity and budget of projects approved by the district government and the provincial government. This thesis further tries to investigate whether MNA's/MPA's execute projects near their own houses/landholdings and whether projects executed impact the behavior of the voters or not.

2. Literature review:

This section explores how social networks are formed and their importance, the impact of political connections, and what factors impact the behavior of voters through existing literature.

2.1 Social networks

Social networks are the collection of interpersonal relations and connections among different people, groups and parties that connect or form link to empower them to manage and communicate on social and economic actions. “A social group is a type of explicit macroscopic structure of society because of their clear tags and boundaries. Since these tags usually come from the real-world social functional institutes/organizations, social groups have strong coincidence with these social institutes/organizations” (Guan et al., 2016). According to Argyle (1991), networks not only provide sanctuary and specialty but also with actual understanding required to efficiently involve play role in economic and social development. “Social networks are a key contributor to the economic and social fabric of life. There is evidence that the social cohesion that social networks provide is critical for societies to prosper economically and for development to be sustainable,” (Jackson & Young, 2016). Networks and connections between people depend on different factors i.e. the organizations and firms tend to form diverse connections to increase their social capital (Wilkinson et al., 2005) and Tigges et al. (1998) found that social community networks are formed based on similarity among people. The political and social connections between people and groups can be influenced by a number of factors like race, age, gender, ethnicity, profession, religious and cultural beliefs, friends, family, caste and the political affiliation of your family (Suresh & Ramesh, 2011, Jackson & Young,

2016). Szwarchberg (2012) in his paper found that the political affiliations are not only due to political network but also depend on social networks.

2.2 Political Connections

In this research the main focus is on political connections: the connections of the MPA's/MNA's with their own party members and the connection of the MNA's/MPA's with the provincial and central governments. If the MPA or MNA has a strong connection with the provincial or central government, he may be favoured by the government when they approve their schemes; similarly if an MPA or MNA has closed ties with any influential member of the party who has strong ties with government they may get their projects approved by the government. There are also chances that they will end up getting higher budget and more popular projects than other MNA's or MPA's. The strong ties between politicians can be because of different factors like caste, party position, number of votes he got in previous election, times he has won the election and ties with other influential and political personalitites. Chandrasekhar et al. (2015) in their lab experiment found that strong connections and link matters when the contracts are not imposed externally but as the social distance increases the external execution plays an important role. According to him, strong connections minimize the affect of external enforcement and this eases competent performance but unequal status results in opportunistic conduct.

Every politician is connected but the nature of links can be different i.e. if they are directly connected they form strong links and if there is indirect connection then the link may be weak. Sinclair (2007) while studying political connection in Mexico using REDMEX database found that political networks are molded in cliques because they embrace diverse offices. Also there are numerous and diverse dealings and politicians can be seen connected in different ways:

“friends in school” , “belong to same government parties” and “belong to same family”(Sinclair, 2009).

The political connections can be harmful for the society as well. Fisman (2001), while studying the impact of political connections on firms performance in Indonesia, found that political conectivity rather than productivity was the key element of profitability and this resulted in bad investment decisions, also when their president health declined the profitability of the politically connected firms also declined. Political connections can also result in rent seeking behavior since actors prefer the private benefits over the social benefits. Amore & Bennedsen (2013) found that political connections at the local level can be a very effective strategy for businesses even in low corruption country like Denmark and this results in lost welfare as political connections allocate rents to less productive firms from highly productive firms. Duchin & Sosyura (2012) also found that political connections results in the decreased government investment efficiency benefiting politically connected firms and other politicions at the expense of society as a whole.

2.3 Voting Behavior

Further this thesis focuses on how the developmental projects executed by politicians impact the voting behavior of people, since politicians may introduce more developmental schemes in order to get more votes, which in turn affects voting behavior. Manacorda et al. (2011) found that government policies play an important role in the decision making of households and have a persistent and large influence on their voting behavior and favourable policies can decrease support for the opposition party.

The literature on this is mixed: Most of the politicians' policies and actions target their voter and supporters. Also people vote according to their preferred policies and parties. Lee et al. (2004) tested how voters choose parties or politicians in the US and found that people vote according to the policies of the candidate while electoral power has no influence on voting behavior of representatives.

Dahlberg & Johansson (2002) in their research on distribution of grants from the central to the lower level of government found that the incumbent government uses the available resources if possible to win the votes of the people and they focus more on swing voters and their supporters rather than opposition party voters. Similarly (Coate & Morris, 1995) found that political policies are targetted towards certain interest groups like farmers, industries, professional groups, firms or unions and this could be because these groups may help them in the next elections or these groups may help them financially while favors from the government can be in form of an introduction of public projects rather than transfers because of the reputational consequences.

The incumbent government performance also impacts the voting decision of people because good performance increases their support for the government and bad performance results in the discontent with the party. Murillo & Visconti (2016) using measures like inflation, reserves and economic growth found that weak performance on these economic measures resulted in a decline in loyalty with the party. Voters are generally myopic, and they may vote on the basis of their recent performance so any problem near the elections can poorly affect the party image or discontent with the incumbent government and people may also vote for certain politicians because of their party affiliation (Achen & Bartels,2004).

Hypotheses and Variable description:

In this thesis we test the following hypotheses:

Hypothesis 1: The strength of political connections has a significant and positive impact on developmental projects allocated to politicians in Faisalabad.

Here there are two dependent variables: the first is the budget of a project which measures how much budget was allocated to a certain project and the second one is the popularity of projects, such as building schools, roads and hospitals etc. The projects are categorized on the basis of importance and popularity according to a survey of people in the constituencies. The main independent variable here is the strength of connections which is calculated by taking average of the following factors (i) connection with the Chief Minister, (ii) connection with the Prime Minister, (iii) connection with Bureaucrats, (iv) connection with Federal ministers and (v) connection with provincial ministers. Each category is measured separately through the following components: direct connections, family connections, part of the same group in a party etc. This data was collected through a questionnaire filled by politically connected individuals. Another independent variable is which government executed the project i.e. TMA, provincial government or district government. We have also included variables that control for a specific constituencies (a constituency dummy, which MNA or MPA executed the project, and a dummy for the years in which local bodies were functional).

Hypothesis 2: The political strength of the MNA/MPA has a significant and positive impact on developmental projects allocated to politicians in Faisalabad.

The government may execute schemes in areas where they have more supporters and from where they get more votes. So, politicians may execute the projects just for the sake of

rewarding their supporters rather than actual need. Here the dependent variable is popularity of project which is categorized according to the popularity of a particular project according to constituents. The independent variables are: how many times the MNA/MPA has won the elections, margin of victory (number of votes a politician won the election), political party affiliation of the MNA and MPA, the connections of the MNA/MPA with other politicians. The control variables include which government executed the project i.e. TMA, provincial or district and constituency level dummies. Different equations are used for the two different political governments i.e. 2010-2013 and 2013-2016.

Hypothesis 3: The development projects executed have a significant impact on electoral outcomes in the 2013 general election.

Here we test whether developmental projects executed by two different governments (PPP in 2008-2013 and PML-N in 2013-2016) plays an important role in reelecting the politician and if these politicians executed high budget projects and introduced more popular developmental schemes. The dependent variable here is the change in the number of votes received by a politician in the 2013 election and the independent variables include the budget of the projects, the popularity of project i.e. how popular they were with the people of their constituency. Other variables include the connection of the politician with the provincial government which is calculated by taking the average of the connections of politician with the CM and the provincial Ministers, the connection between the politician with the Federal government which is the average of the connections with federal ministers and the PM. Other control variables include the total voter population for every constituency and a year dummy for 2012 as well as the interactions of popularity of project a budget of project.

Hypothesis 4: MNA's/MPA's execute more popular projects and higher budget projects near their own residence.

MNA's or MPA's may execute more and more popular projects near their own areas for their own convenience or for their supporters. There are again two dependent variables, one is the popularity of projects and the other one is the budget of the project executed in the area. The independent variables include the distance of the project from the MNA's or the MPA's area which will be calculated using GPS coordinates of the location of projects and the location of the politician's residences, the interaction of the distance with the connections of politicians with bureaucrats, the Punjab and the Federal government. Constituency level dummies are also included.

3. Methodology

This section starts with the description of the data and the list of the important variables that have been used to check the hypotheses. The empirical strategy have also been discussed along with the models and equations used to test the hypotheses.

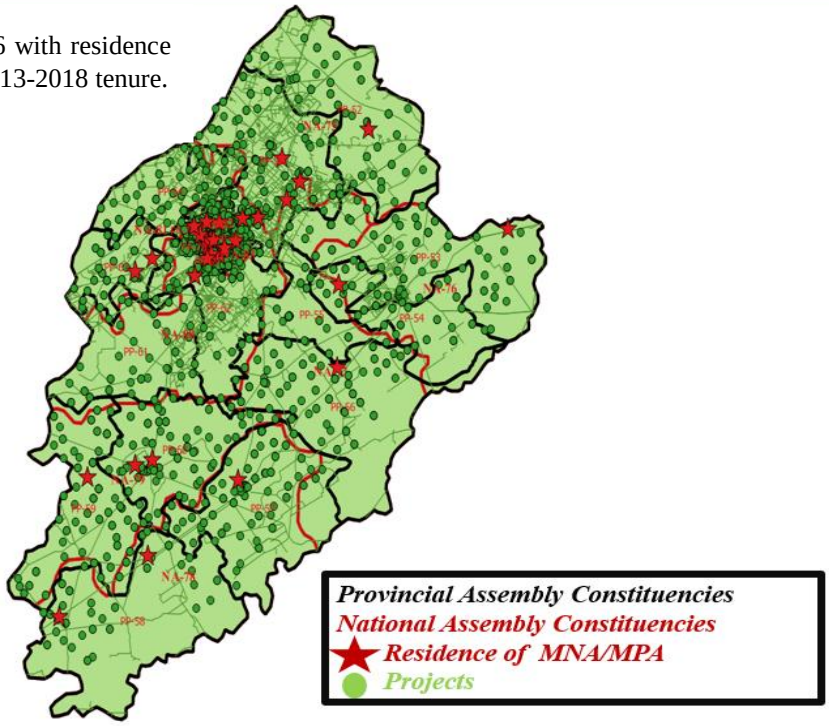
3.1 Data

The main objective of this research is to look at whether political connections play any role in getting approval for district level developmental projects executed by the government and what was the electoral outcome of allocation of these developmental projects in the 2013 general election.

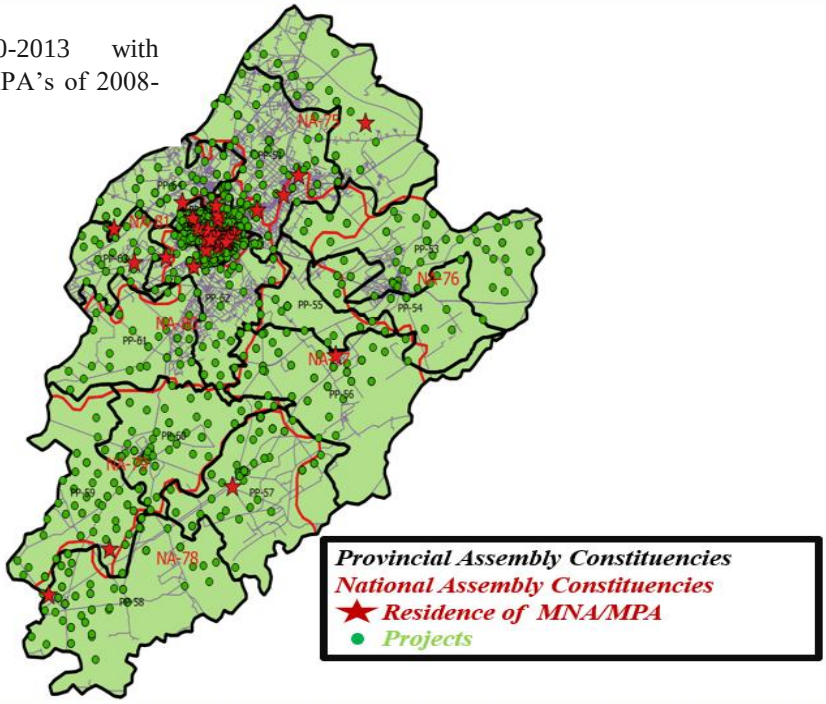
Development data of Faisalabad is used from 2010-2016 and during this time 6900 projects were executed. Furthermore, the data has information on the project program, name of project, in which constituency the project was executed, the location of the project, cost of project, date of approval of project and date of completion of the project.

The two maps below show the projects and the residence of the politicians who executed the projects. The red and black lines are the boundaries of the National assembly constituencies and the provincial constituencies respectively; the green circles represent the projects executed by politicians in their constituencies; and the red stars are the residence of the elected MNA's and MPA's. Through this mapping we can calculate the road distances between the politician's residence and the projects executed by these politicians.

Projects from 2013-2016 with residence of MNA's -MPA's of 2013-2018 tenure.



Projects from 2010-2013 with residence of MNA's -MPA's of 2008-2013 tenure.



Allocation of development funds in Faisalabad District:

Faisalabad district is divided into 8 towns known as TMA's (town Municipal administrations) and are administered by TMO's (Town Municipal Officers). The DCO (District Coordination officer) is the district level administrator, and he/she approves and administers district level projects. Furthermore, the district is divided into 287 small union councils. There are 11 national assembly constituencies i.e. from NA75-NA85 and 21 provincial assembly seats from PP51-PP72 in Faisalabad. Different development schemes are executed by these MNA's and MPA's through the funds or grants allocated to them by the TMA's, the DCO, the provincial government and the central government. The process of division of funds and development schemes is different under TMA's, DCO's and both the governments, which is explained in fig 1.

How funds are allocated by government:

Fig 1: Approval Matrix source: P&D development Manual.

APPROVAL MATRIX	
WHO?	**WHEN?**
ECNEC	All projects referred by provincial government exceeding PKR 10,000 million or having external financing – no limit
PDWP	Projects up to PKR 10,000 million (with external financing for up to 25% of the project) No water project Projects referred by Departmental Development Sub-Committee (DDSC)
DDSC	Projects up to PKR 200 million
Divisional Development Working Party (DDWP)	Projects up to PKR 100 million
District Development Committee (DDC)	Schemes of devolved sectors up to PKR 50 million Schemes of town/tehsil municipal administrations (TMAs) exceeding PKR 5.0 million
Category I Officer	Schemes of respective offices/departments reflected in the ADP costing up to PKR 2.5 million (without PC-I)
Union Administration	Schemes with costs below PKR 0.100 million included in ADP of Union Administration
TMA Works Committee	Development works costing up to PKR 5 million included in approved budget of TMA
CDWP	Approving provincial projects up to PKR 3,000 million, where federal or foreign component is involved

TMA's collects their funds and grants through different means i.e. 1) they get grants and their budget share from the district 2) they collect their revenue through fees, permits, fines and tax. This sums up in their total budget which is further divided into two categories: 1) Non-development funds which are their priority since they are first used for paying utility bills and salaries etc. 2) Development funds. MNA/MPA proposes the schemes which they want to execute and if they are per P&D's guideline they are evaluated by the TDC (tehsil development committee/ administrator) and are included in the TMA ADP's (annual development projects). The projects proposed every year are ranked by priority, and these priorities are set by the government. The policy for 2010-2013 was to improve socio-economic indicators and their priorities were education, health, sewage, water supply, livestock etc. and the priorities for 2013-16 were same with the addition of project aimed at MDG's, Infrastructure improvement,

providing jobs etc. The projects that are approved by TMA's tend to have lower budgets i.e. they can approve development projects costing up to Rs 5 million (refer fig1).

District Governments can approve schemes costing more than Rs 5 million (which the TMA's can't approve) and there are 3 different levels in district approving committees as well (see fig 1) though the members in each committee are different (check appendix figure 2). The highest amount any district committee can approve is Rs 200 million.

There are different schemes announced by the provincial government like health, education, sanitation, and roads project. Again, the budget allocation system is as shown in fig 1, but mostly these projects are of higher budget and are approved by the concerned committee accordingly. To see the detailed information on members of committees see appendix figure 2.

In addition to our secondary data we conducted two surveys to measure the popularity of project and the Political connections of specific politicians. The popularity of projects amongst voters was measured by conducting a small survey in all of the constituencies of Faisalabad to get an idea of how constituents ranked projects based on their subjective assessment. We conducted 8-10 surveys in each constituency and a total of 100 surveys were conducted. The survey had questions on how important one specific project is for a voter ranging from 1-5 with 1 being the least important and 5 being the most important. The political connection survey was conducted to establish the connections between the politicians and their connections of politicians with government officials. This survey measured a politician's connection with the Chief Minister, provincial ministers, bureaucrats, and the connection with other MNA's/MPA's, with Federal Ministers and the Prime minister and were all measured on a scale of 1-5, with 1 being the lowest and 5 being the highest. The survey contained both social and political factors. The table below (table 1(a)) shows the average ranking of the popularity of projects based on the

constituent level survey. We can see that the highest ranked are water supply projects and the lowest ranked are boundary walls; health facilities and water filtration projects are also ranked high.

Table 1 (a)	
Project	**Rank**
Boundary walls	3.11
Electricity Installation	3.29
Graveyards	3.42
School infrastructure	3.77
Roads	3.87
Educational institutions	3.87
Bricked streets	4.05
Parks n playgrounds	4.06
Sewerage	4.58
Health facilities	4.86
Water filtration plant	4.99
Water supply	5

Table 1(b) shows the percentage numbers of each type of project executed (as a percentage all executed projects) and we can see that the most projects executed are sewerage projects and these types of projects are also ranked fairly high. Other projects that are executed in high numbers included bricked streets, roads and school infrastructure. But when we look at water supply projects, they are second in terms of popularity but are very low in terms of percentage of project executed (only 0.35 percent). Similarly, water filtration plants and health facilities were highly ranked, but are low in terms of percentage of projects executed (i.e. 0.99% and 0.385% respectively).

Table 1(b)		
Project	**Rank**	**%age of project**
Electricity Installation	3.29	0.044510386
Water supply	5	0.356083086
Health facilities	4.86	0.385756677
Educational institutions	3.87	0.964391691
Water filtration plant	4.99	0.994065282

Graveyards	3.42	1.721068249
Parks n playgrounds	4.06	2.195845697
Boundary walls	3.11	2.62611276
School infrastructure	3.77	13.90207715
Roads	3.87	17.84866469
Bricked streets	4.05	19.56973294
Sewerage	4.58	39.39169139

Table 1(c) shows the ranks of each project type and the percentage share of budget of each type from the total budget spent from 2010-2016. The highest budget allocation was for roads and the lowest was for electricity installation. The two highest ranked project types, water supply and filtration plant have the 2nd and 3rd lowest budget allocations i.e. 0.290% (for filtration plants) and 0.3445% (for water supply projects), while health facilities were only been allocated 1.18 % of the total budget although they are ranked extremely high by the constituents.

Table 1 (c)		
Project	**Rank**	**% of budget**
Electricity Installation	3.29	0.010933925
Water filtration plant	4.99	0.290366434
Water supply	5	0.344592794
Graveyards	3.42	0.884589179
Health facilities	4.86	1.180885062
Boundary walls	3.11	1.193351273
Educational institutions	3.87	2.412953428
Parks n playgrounds	4.06	2.506505113
Bricked streets	4.05	11.8730234
School infrastructure	3.77	14.78585169
Sewerage	4.58	21.78776591
Roads	3.87	39.29916702

The table 1(d) shows the ranks of the project type and the popularity weighted budget which is calculated using the following equation:

$$popularity\ weighted\ budget = \frac{\Sigma\left(\begin{pmatrix} Rank\ of\ each\ project \div 5 \\ \times Budget\ of\ each\ project \end{pmatrix}\right)}{Total\ money\ spent\ on\ all\ projects}$$

The table shows that the highest popularity weighted budget allocated is for roads while the lowest is of electricity installations.

Table 1(d)		
Project	**rank**	**Popularity weighted Budget**
electricity Installation	3.29	7.19452E-05
Water filtration plant	4.99	0.002897857
Graveyards	3.42	0.00605059
Boundary walls	3.11	0.007422645
Health facilities	4.86	0.011478203
Water supply	5	0.016540454
educational institutions	3.87	0.01867626
parks n playgrounds	4.06	0.020352822
bricked streets	4.05	0.09617149
School Infrastructure	3.77	0.111485322
Sewerage	4.58	0.199575936
Roads	3.87	0.302603586

This shows that government has spent more money on projects that are not ranked high by the constituents; although water supply and health facilities are one of the government's main objectives in policy and are ranked high by the constituents, the amount of money spent on them was the lowest.

Descriptive Statistics of the Variables

Table 2 shows the descriptive stats of our key variables, we see that the maximum amount of money allocated to a project is Rs 98.136 million with the lowest of Rs 0.005 million. The mean value of budget allocation is Rs 2.740051million. The highest voter population of any constituency is 311576 and the lowest is 29858. The third variable in the Table 1 shows how well the politician is politically connected; the highest ranked politician in terms of connections is 3.9 out of the scale of 5 and the lowest ranked politician in terms of connection has a rating of 1.4 and the mean connection is of rating 2.537.

Table 3. Tabular Stats of popularity of Projects and which government executed the project

Table 2 Descriptive statistics

Variables	Observations	Mean	Std.Dev.	Min	Max
BOP	6916	2.740051	6.266	.005	98.136
Pop	6916	174676.5	52488.58	29858	311576
OVC	6916	2.537989	.5712978	1.4	3.9

PC	Low ranked Projects	High ranked Projects	Total
TMA	518	1995	2513
District Gov.	540	927	1467
Provincial Gov.	1519	1137	2656
Total	2577	4059	6636

The highest numbers of projects are approved by the provincial government (2656 out of 6636) (Table 3). Table 3 shows the break-up of the number of executed projects in terms of the approving body. TMA's executed the majority of higher ranked projects 1995 out of 2513. The provincial government approved the majority of projects that were ranked lower by the people. The total numbers of high ranked projects were 4509 which are 67% of the total projects while 33% of the projects were low ranking projects.

3.2 Empirical Strategy

Different econometric techniques were used to test different hypothesis. We used a logit model to test the impact of the strength of political connections on the allocation of development projects and to see the impact of political strength on the popularity of executed project and whether politicians execute high budget better developmental schemes near their own areas. Linear regressions were used to check if there was any impact of development projects executed on electoral outcomes in the 2013 general election.

3.3 Model

The following models were estimated:

Hypothesis 1:

To check whether the strength of the political connections impact the allocation of development project a logit regression has been estimated using the popularity of projects (equation 2) and an OLS model has been estimated to see the impact of political connections on the budget of projects (eq.1).

$$BOP= \beta_0 + \beta_1 OVC + \beta_2 PR + \beta_3 CwCM + \beta_4 CWprM + \beta_5 CWB + \beta_6 CwPM + \beta_7 CwFM + \beta_8 LBE + \beta_9 Prv + \beta_{14} Cons_+ \varepsilon_{if} \quad \ldots\ldots\ldots\ldots\ldots (1)$$

$$POP= \beta_0 + \beta_1 OVC + \beta_2 PR + \beta_3 CwCM + \beta_4 CWprM + \beta_5 CWB + \beta_6 CwPM + \beta_7 CwFM + \beta_8 LBE + \beta_9 Prv + \beta_{14} Cons_+ \varepsilon_{if} \ldots\ldots\ldots\ldots (2)$$

Here BOP is the budget of project. OVC is the strength of political connections, PC is the approving body (TMA, district government and provincial government) and TVP is total voter's population of a constituency which is a control variable. CwCM is the connection with the CM, CwPMIS is the connection with PM, CwB is the Connection with bureaucrats, CWprM is connection with the provincial ministers, CwFM is connection with the federal ministers, and LBE is if local bodies were functional or not when the project was executed. In the second equation, the dependent variable is the popularity of a project. POP is a dichotomous variable which is 1 if a project is popular among constituents and 0 otherwise.

Hypothesis 2:

To observe the impact of political strength on the allocation of projects, a logit model has been used to estimate equation (3) where the dependent variable is the popularity of a project and an OLS model has been used for equation (4) where the dependent variable is the budget of the project. The political strength is measured through the percentage of votes received in the

elections, the number of times a politician has won the general elections and what was the margin of victory in the election. The following model was estimated:

$$POP = \beta_0 + \beta_1 TW + \beta_1 MV + \beta_3 MV*C + \beta_4 PAP + \beta_5 PAF + \beta_6 OVC +$$

$$\beta_8 Constituency + \varepsilon_{if} \ldots\ldots\ldots (3)$$

$$BOP = \beta_0 + \beta_1 TW + \beta_1 MV + \beta_3 MV*C + \beta_4 PAP + \beta_5 PAF + \beta_6 OVC +$$

$$\beta_8 Constituency + \varepsilon_{if} \ldots\ldots\ldots (4)$$

Hypothesis 3:

Next, to test whether the execution of projects in a constituency impacted the electoral outcomes of the 2013 elections, a linear regression model has been estimated using following specification:

$$CV = \beta_0 + \beta_1 POP + \beta_2 BOP + \beta_3 CwPG + \beta_4 CwFG + \beta_5 CwFG*POP + \beta_6 CWPG*BOP + \beta_7$$
$$CwPG*POP + \beta_8 CWFG*BOP + \beta_5 PE*POP + \beta_6 PE*BOP + \varepsilon_{if} \ldots.(5)$$

Here CV is the change in votes, POP is popularity of project, BOP is the budget allocated to the project, CWPG is the connection with the provincial government, and CWFG is the connection with the federal government.

Hypothesis 4:

To test the hypothesis of whether politicians execute high quality projects near their own area, the following OLS model has been estimated:

$$POP = \beta_0 + \beta_1 Dis + \beta_2 Dis*CWB + \beta_3 Dis*CWFG + \beta_4 Dis*CWPG + \beta_5 i.\ PC + \beta_6 I.\ Constituency +$$

$$\varepsilon_{if} \ldots\ldots (6)$$

$$BOP = \beta_0 + \beta_1 Dis + \beta_2 Dis*CWB + \beta_3 Dis*CWG + \beta_4 i.\ PC + \beta_5 I.\ Constituency + \varepsilon_{if} \ldots\ldots\ldots (7)$$

In the above model *Dis* is the distance in kilometers between the politician's residence and the location of the project executed.

4. Results

For the estimations, OLS and Logit models have been used. The results obtained are discussed below.

4.1 Hypothesis 1

The first hypothesis estimates the impact of political connections on the allocation of funds and projects executed by the MNA's/MPA's.

The results are shown in table 4. Column 1 shows the results from the 2nd equation which suggest that connections have a highly significant and positive impact on the budget of projects. So, if MNA's/MPA's have stronger overall connections, the budget of the projects executed is higher. These findings are in accordance with the literature where it has been seen that politicians favor those parties and individuals with whom they are well connected (Claessens et al. , 2008). Also, it is interesting to note that the budget of project also significantly depends on who approves that project. This is in accordance to the P&D guidelines of approving a project as well since TMA's approve the lowest budget projects, then district governments approve projects of medium budgets and then the provincial government approves projects with highest budget. When looking at the connections at all levels, the connections with the CM, PM and other MNA's/MPA's have no significant impact but connections with both Federal and Provincial ministers have a negative impact on the budget of project; the MNA/MPA is well connected with bureaucrats, then higher budget projects were executed. This might be because bureaucrats are the one who play a major role in approving projects and allocating budgets.

Column 2 of table 4 shows the results of the logit model used to estimate the impact of connections on the popularity of projects executed. By looking at column 2 we can see that

connections have a very strong and negative relationship with the popularity of projects. This shows that if the connections of the MNA's/MPA are increased, then the probability of executing popular projects decreased. The results also show that the popularity of projects the MNA/MPA executed highly depends on who approves the project. If the project is announced or approved by the provincial government, then the MNA/MPA executes projects that are less popular among constituents while we can see that the TMA's approve projects that are more popular. This means that the TMA's tend to approve the projects that are according to the needs of the general public rather than the felt need of the politicians. Further, if the project was executed during the years when local governments were functional then the probability of executing more popular projects increased. These two results seem to imply that a more decentralized system is better at meeting the demands of the general public. The literature also shows that the local level governments tend to be more receptive to the demands of the general public (Bardhan, 2002). But in most developing countries it is difficult for local governments to operate because of influential local elites, low accountability and their powers and roles are not well defined, so to overcome these issues serious attempts are needed to transform the power structures within the groups and to differentiate the powers between all the levels of governments (Bardhan, 2002 & Herath, 2009).When we look at the connection of the MNA/MPA with the CM, PM, ministers, bureaucrats etc. we see that the connection with the CM and the connection with other MNA's/MPA's have no significant impact on the popularity of projects executed by the MNA's/MPA's. But if the MNA/MPA has strong connections with ministers (both federal and provincial) and bureaucrats, then the probability of executing more popular projects was higher. At the same time if the politician is better connected with the PM, then the projects being executed are less popular.

Column 3 in table 4 shows another interesting finding. This equation is the same as that of column 1, but budget of project is added to test the relationship between the budget of projects and the popularity of projects executed. We see that there is highly significant and negative relationship between the two variables. So lower budget projects tend to be more popular with constituents.

Table: 4,Hypothesis 1 **VARIABLES**	(1) Budget Of project	(2) Popularity of project	(3) Popularity of project
Budget of project			-0.180***
			(0.0501)
Overall Connections	1.584***	-0.496**	-0.351
	(0.520)	(0.230)	(0.270)
Connection with CM	0.428	-0.0352	-0.0411
	(0.360)	(0.0778)	(0.115)
CONNECTION WITH PROVINCIAL Ministers	-1.905***	0.390***	0.267
	(0.394)	(0.0949)	(0.170)
Connections with Bureaucrats	1.267***	0.209***	0.306**
	(0.331)	(0.0747)	(0.127)
Connection with other MNA'S/MPA'S	-0.00933	-0.0635	-0.0712
	(0.359)	(0.101)	(0.147)
CONNECTION WITH PM	0.349	-0.320***	-0.308***
	(0.341)	(0.0621)	(0.112)
CONNECTIONS WITH National Ministers	-1.666***	0.461***	0.352**
	(0.414)	(0.112)	(0.166)
Local Body Government	0.00356	1.177***	1.307***
	(0.407)	(0.152)	(0.278)
PP	1.473	-1.062***	-0.874*
	(1.021)	(0.355)	(0.525)
2.District	2.593***	-0.956***	-0.581*
	(0.277)	(0.0896)	(0.297)
3.Provincial Government	2.380***	-1.862***	-1.620***
	(0.401)	(0.0813)	(0.364)
Constant	-2.155*	1.085***	0.981*
	(1.173)	(0.332)	(0.554)
Constituency	YES	YES	YES
Observations	6,677	6,596	6,596
R-squared	0.072		

Robust standard errors in parenthesis, the errors are clustered at the constituency level.
*** p<0.01, ** p<0.05, * p<0.1

From the literature we see that if the politicians are highly connected they tend to execute projects that have high budgets irrespective of the needs of their people. The literature also shows that politicians do favor those with whom they are better connected but this can result in the loss of social welfare (Amore & Bennedsen, 2013) by decreasing government investment efficiency and by benefiting certain politically connected people at the expense of most of society (Duchin & Sosyura, 2012). We can observe a similar case here and this might be because well-connected politicians get high budget projects as political rewards; or perhaps these projects (like construction of roads, buildings etc.) are white elephant projects which lead to higher rents. Further, it is important to note that connections with bureaucrats are very important which may be because bureaucrats, who are better connected, get more promotions, and they may be willing to return the favor to politicians. Charron and Dahlström (2017) also found that officials behave partially because their careers depends on politicians and also the corruption risks are lower when bureaucrats careers do not depend on politicians but their peers.

Table 5 presents the estimates for the same specification but only for 2012 which was the year before general elections. The results show that if the overall connections of the MNA's/MPA's were strong then the probability of executing popular projects increased and we get the same results when we look at the budget of the project (table 5 columns 1, 2). Connection with the CM, PM and other MNA's/MPA's have a negative impact on the popularity of project, i.e. if the connections with these factions are strong that means that the probability that politician execute more popular project decreases. And if politicians are well connected with national ministers and provincial ministers, the probability of executing more popular projects increased (column 1). The impact of the connections with Bureaucrats on the budget of the project is negative, which may be because closer to elections politicians want to execute popular projects

and the same may be the case with connections with national and provincial ministers. But if a politician is well connected with the PM, CM and other influential MNA's/MPA's, he tends to execute projects of higher budget. From table 5 we see that when the elections are near and the overall connections of politicians are strong the probability of executing more popular projects increases and the budget of the projects is higher as well. The previous literature also found that voters are myopic and they vote according to recent activities by the politicians and tend to ignore the performance of politicians throughout the tenure (Achen & Bartels, 2004), so looming elections leads politicians to execute more popular projects.

Table:5, Hypothesis 1, (2012) **VARIABLES**	**(1)** **Popularity of project**	**(2)** **Budget Of project**
Overall Connection	1.733***	3.312***
	(0.428)	(0.339)
Connection with CM	-1.896**	7.481***
	(0.766)	(0.853)
CONNECTION WITH PROVINCIAL MINISTER	1.348***	-7.670***
	(0.379)	(0.992)
CONNECTIONS WITH BUCREAUCRATS	0.118	-1.826***
	(0.329)	(0.346)
CONNECTION WITH INFLUENTIAL MNA'S/MPA'S	-1.779***	1.135***
	(0.0503)	(0.258)
CONNECTIONS WITH PM	-10.41***	-1.485**
	(0.660)	(0.604)
CONNECTION WITH NATIONAL MINISTERS	9.253***	0.297
	(0.343)	(0.483)
PP	-4.140***	1.565***
	(0.596)	(0.483)
2.District Gov.	-1.498***	3.078***
	(0.309)	(0.545)
3. Provincial Gov.	-1.823***	2.947***
	(0.427)	(0.825)
Constant	5.029***	-2.630***
	(1.665)	(0.595)
Constituency	YES	YES
Observations	856	916
R-squared		0.092

Robust standard errors in parenthesis, the errors are clustered at constituency level.
*** p<0.01, ** p<0.05, * p<0.1

4.2 Hypothesis 2:

Hypothesis 2 estimated the impact of electoral strength on the budget of project and popularity of projects. Table 5 presents the results for 2010-2013. Column 1 shows the results for the OLS regression, in which the number of times a politician has previously won the elections (TW) has a highly significant and positive relationship with the budget of project. Times won is how many times MNA/MPA has won the general elections including the 2008-13 tenure; in the 2010-13 data we have incorporated data from two general elections i.e. 2002-2008 and 2008-2013, When we look at the impact of electoral strength on the budget and popularity of projects for 2010-2013, if the politician's margin of votes increases as compared to the previous election he executed high budget project and if the politician won for the second time, the executed project were more popular and were of lower budget as compared to the politicians who won for the first time (see column 1 and 2, table 6). This may be because the governments at that time tried to secure their safe seats by executing projects that were more popular among the constituents. Also, it is important to note that the politicians who were affiliated with the federal government executed fewer high budget projects as compared to others (column 1) and those affiliated with the Provincial government executed fewer popular projects as compared to other politicians (column 2).

This may be because the politicians considered their seats to be safe and so to ensure that they win these seats in the next elections they executed projects that were more popular with the constituents.

Table 6, Hypothesis2 (2010-13) VARIABLES	(1) Budget of Project	(2) Popularity of project
Margin of victory	0.0604***	0.000370
	(0.0101)	(0.00734)
Times won	-2.561***	1.133*
	(0.539)	(0.604)
Party affiliation with Punjab Gov.	-0.429	-1.280***
	(0.318)	(0.225)
Party affiliation with Federal gov.	-1.435***	0.158
	(0.394)	(0.502)
2.District	2.802***	-0.853***
	(0.518)	(0.279)
3.Provincial	4.806***	-1.700***
	(0.824)	(0.343)
Constant	4.135***	-0.874
	(0.887)	(1.100)
Constituency	YES	YES
Observations	2,335	2,329
R-squared	0.087	
Robust standard errors in parenthesis, the errors are clustered at constituency level. *** p<0.01, ** p<0.05, * p<0.1*		

Results for 2013-2016 are presented in table 7. In this model, the times won (TW) variable is measured over three tenures i.e. 2002, 2008 and 2013. TW has a highly significant and positive relationship with budget of project. If the MPA/MNA has won three times then he executed projects that were of higher budget as compared to that who won for the first time. Winning two times is also significant but when we compare the coefficient of winning 3 times with that of winning two times, then winning two times has a smaller impact (see column 1, table 7). Party affiliation with the ruling government has a positive and significant impact on the budget of project, the second equation estimated to test the impact of electoral strength on the popularity of projects (column 2, table 7). Times won has a negative impact on the popularity of projects executed by politician, so if the MNA/MPA won for the third time then the probability of executing popular projects decreased as compared to the MNA/MPA who won for the first

time or the second time. Comparing both tenures, one thing we can observe is that party affiliation matters in a sense that every party has their own policies and the parties behave differently according to their motives; here we can clearly see that the Punjab government party from 2008-2013 and the same party which was the ruling party in Punjab and the Federal in 2013-2016 preferred to execute high budget projects in their safe seats as compared to the party in the federal government in the last tenure.

Politicians use the available resources to get more votes and they tend to focus on areas that have their supporters rather than those who vote for their opponents (Dahlberg & Johansson, 2002) and the policies that target toward certain groups from where they can get benefit in form of votes and other monetary benefits (Coate & Morris, 1995). So, the case might be that the politicians who have won for the second and third time consider their area as safe seats causing them to execute projects that were both high budget and highly ranked by the constituents in those constituencies to reward their voters.

Table 7, hypothesis 2 (2013-16)	**(1)**	**(2)**
VARIABLES	**BOP**	**BOP**
Margin of votes	-0.00420	-0.00591
	(0.00702)	(0.0338)
2.Times won	0.217**	-0.528
	(0.0980)	(0.661)
3.Times won	1.823***	-1.097*
	(0.184)	(0.591)
Party affiliation with gov.	1.318***	-0.989
	(0.293)	(1.240)
2.District	2.342***	-0.980**
	(0.269)	(0.477)
3.Provincial	1.110***	-1.812***
	(0.164)	(0.528)
Constant	-0.615*	2.917***
	(0.315)	(0.968)
Constituency	Yes	Yes
Observations	4,209	4,128
R-squared	0.081	
Robust standard errors in parenthesis, the errors are clustered at constituency level. *** p<0.01, ** p<0.05, * p<0.1		

4.3 Hypothesis 3:

Hypothesis 3 estimates the impact of the popularity of projects and the budget of projects executed from 2010-2013 on the number of votes a politician received in the 2013 general elections. The popularity of projects had a significant and positive impact on electoral outcomes and the budget of projects also has a significant and positive impact. But when we compare the co-efficient sizes we can see that the impact larger for the popularity of project (refer table 8). This shows that at the end of the day, voters prefer those politicians who execute more popular projects.

If the connection of the politician was strong with the Punjab government and they executed high budget projects, their votes decreased in the election. As previously noted, the popularity of projects and the budget of projects have an inverse relationship so if the projects executed by the politician was not according to the need of the constituents then the constituents did not vote him. Even if the connections of the MNA/MPA were strong with the federal government and they executed the projects that were more popular, there was no significant impact on the change in votes. This may be because of the fact that the overall performance of the Federal government party (PPP) was poor so their vote bank decreased and this is in accordance with the literature as well which finds that if the government's performance deteriorates, this in turn increases the support of voters for the opposition party (Murillo & Visconti, 2016). Connections with the Punjab government had significant and positive impact on the change in votes which may be because this was the opposition party and people voted for them in the next elections. If the politician executed more popular projects of near the elections then their vote bank increased significantly the next elections.

This shows that the policies of politician have a significant impact on the voting behavior of people and if their policies are according to the needs of people, the vote bank increases for that party (Manacorda et al.,2011). The results of this regression also show that people vote according to their preferred policies (Lee et al., 2004) and in particular people voted for politicians who executed projects according to their needs and the party whose policies and overall performance was better. Murillo & Visconti (2016) found that weak performance on the economic measures resulted in a decline in loyalty with the party. The results also show that voters are mostly myopic and that may also vote for certain people because of their party affiliation (Achen & Bartels, 2004). And here we can see this happening, since we find that if better projects were executed in 2012 then the votes received by politician significantly increased.

Table 8, Hypothesis 3 **VARIABLES**	**CV**
Popularity of project	0.207** (0.0831)
Budget of project	0.00977** (0.00426)
Connection with Punjab gov.* Budget of project	-0.00243*** (0.000942)
Connection with Federal gov.* Budget of project	-0.000941 (0.00169)
Connection with Federal gov.* popularity of project	-0.141*** (0.0299)
Connection with Punjab gov.* popularity of project	-0.0231 (0.0185)
Connection with Punjab gov.	0.218*** (0.0160)
Connection with Federal gov.	0.0159 (0.0262)
Pp	-0.314*** (0.0487)
Project executed in2012*budget of project	0.000378 (0.00177)
Project executed in2012*popularity of project	0.0823*** (0.0221)
Voter Population	6.23e-06*** (1.19e-06)
Voter Population^2	-0*** (0)
Constant	-0.808*** (0.131)
Observations	2,338
R-squared	0.363
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1	

VARIABLES	(2) CV
Costall	0.00648
	(0.00421)
IMP	0.275***
	(0.0835)
PAP	0.0447
	(0.0517)
PAF	-0.592***
	(0.0532)
papPOP	0.0163
	(0.0603)
pafPOP	0.307***
	(0.0596)
pafBOP	-0.00759*
	(0.00404)
papBOP	-0.00125
	(0.00259)
pp	0.00178
	(0.0291)
cwPBOP	-0.00190*
	(0.00113)
cwfBOP	0.00117
	(0.00194)
cwfPOP	-0.251***
	(0.0372)
cwpPOP	0.00535
	(0.0262)
CWF	0.232***
	(0.0317)
CWP	0.184***
	(0.0228)
yrdPOP	0.0375*
	(0.0220)
yrdBOP	0.000292
	(0.00170)
Constant	-0.925***
	(0.0796)
Observations	2,338
R-squared	0.416

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.4 Hypothesis 4:

Table 8 shows the results for hypothesis four which tested whether politician executed projects of high budgets and higher rank closer to their own residences. Results show that if the politician is well connected with Punjab government then the MNA/MPA execute high budget projects near their own residence and there is no significant relationship of distance of projects from the MNA's/MPA's residence with the politician's connections (interacted with the politician's connection with the federal government, provincial government and bureaucrats) with the budget of projects and the popularity of projects, for 2010-2013 data (see table 9).

Table 9, Hypothesis 4, (2010-2013) **VARIABLES**	**(1)** **BOP**	**(2)** **POP**
Distance	0.00260	-0.00593
	(0.0358)	(0.0327)
Distance*connection with Punjab Gov.	-0.0194*	0.00348
	(0.0106)	(0.0110)
Distance*connection with Federal Gov.	-0.0185	0.00133
	(0.0209)	(0.0105)
Distance*connection with Bureaucrats	0.0115	0.00261
	(0.0158)	(0.0181)
2.District	2.520***	-1.140***
	(0.622)	(0.407)
3.Provincial	6.408***	-1.742***
	(0.960)	(0.366)
Constituency	Yes	Yes
Constant	2.980***	0.507
	(0.572)	(0.492)
Observations	1,714	1,710
R-squared	0.126	
Robust standard errors in parenthesis, the errors are clustered at constituency level. *** p<0.01, ** p<0.05, * p<0.1		

The results for 2013-2016 show a significantly positive relationship between the distance and the budget of project, which means that if the distance between the politician's residence and

project increased, the projects executed were of higher budget (see table 9, column 1). But when we look at the interaction term of distance and connection with bureaucrats we see significant and negative relationship which means that if the connection of the MNA/MPA is strong and the distance increases then the budget allocated was lower. So, if MNA/MPA has strong connections with Bureaucrats then he executed higher budget projects near his own residence as compared to those who had low connections. There is no significant impact of connections with the government on the budget of project and all of the other variables are insignificant in the estimates for the popularity of project.

Hypothesis 4 (2013-16)	**(1)**	**(2)**
VARIABLES	**POP**	**BOP**
Distance	-0.0265	0.0518*
	(0.0161)	(0.0285)
Connection with government*distance	0.00952	0.00974
	(0.0104)	(0.00965)
Connection with Bureaucrats *Distance	0.000724	-0.0245**
	(0.00581)	(0.0107)
2.District	-1.332***	1.544***
	(0.175)	(0.235)
3. Provincial	-2.906***	0.170
	(0.169)	(0.267)
Constant	1.417***	2.836***
	(0.193)	(0.358)
Constituency	Yes	Yes
Observations	3,197	3,197
R-squared		0.048

Robust standard errors in parenthesis, the errors are clustered at constituency level.
*** p<0.01, ** p<0.05, * p<0.1

The politician may not be able to execute better projects or high budget projects near their own houses because the projects are approved by different hierarchy levels depending on the cost of the project and these committees consists of Ministers, bureaucrats etc. and are also influenced by the PM and CM so those who are well connected get to execute better and high

budget projects near their own residence. The politicians may execute projects near their own residence because their policies are targeted towards certain groups for their own electoral benefit and also to perhaps just show their electoral strength.

5. Conclusion

This study analyzed the impact of political connections on the allocation of development projects in Faisalabad district using data from 2010-2016. The data consists of the projects that were executed by the TMA's and the district level government. The analysis used two different variables: 1) the budget of projects executed and 2) the popularity of projects which was ranked on a scale of most important (5) to least important (1) by the constituents. Further, this study looked at whether the electoral strength of politicians impacts the division of funds among the MNA's and MPA's. It also attempted to see that is there any impact of the popularity of projects executed and the budget of projects executed in the years 2010-13 on the voting behavior of constituents and finally whether politicians executed projects that were more popular and of higher budget near their own residence.

The results show that the connections of politicians play a very important role in the allocation of the development projects. The overall connections of the politicians have a significant and positive impact on the budget of project while the probability of executing popular or important projects decreased if the connections are stronger. The findings are similar to the previous literature: that connections rather popularity of projects are key in the allocation of resources and this results in bad investment decisions by the government since politicians may benefit at the expense of society. It is also interesting to note that according to our results, the popularity of projects and the budget of projects are inversely related which means that lower budget projects are more popular. This means that well-connected politician spend money on projects that are not as popular with their constituents and this promotes rent seeking behavior, and decreased efficiency of government investment. We also saw that the highest budget projects are road projects and a significant percentage of the budget is spent on them even though they

are not ranked as very important by the constituents. This shows that the politicians may personally benefit at the expense of the society when they execute these white elephant projects. Connections with bureaucrats have a positive and significant impact on the popularity of projects executed and the budget of projects executed but when we look at the coefficients, the impact on the budget of projects executed is greater than on the popularity of project. This may be because the careers of bureaucrats depend on their connection with the politicians and they may want to ingratiate themselves to certain politicians for career advancement.

The budget and the popularity of projects also depend on who executes the project. From the results we can see that high budget projects are generally approved by the district and provincial government and these results are in accordance with the guidelines of P&D, because they have defined the limits of government spending where TMA's approve the lowest budget projects and the provincial government approves the highest. But it is opposite for the popularity of projects, since the most popular projects are approved by the TMA's and least popular by the provincial government. This shows that the TMA's have a better understanding of the needs of the constituents and smaller budgets are being allocated to the projects that are more popular. We also find that when there were local bodies functional (local body election took place in 2015) then more popular projects were executed. These two results show that a more decentralized system is better since local governments tend to better understand the demands of general public. Literature also shows that decentralized systems tend to make local governments more receptive to the demands of the general public. But in most of the developing countries it is also difficult for the local governments to operate because of the influential local elites, low accountability, and ill defined powers and roles, so to overcome these issues serious attempts are needed to transform the power structures within the groups and to differentiate the powers

between all the levels of governments. Further when we look at the same specifications for projects from 2012-13 i.e. the year before election we find that if politicians were well connected, they executed high budget project as well as the more popular projects. This shows that politicians are aware of the voting behavior of the general public in that they are myopic and vote according to their preferred policies.

When we look at the impact of electoral strength on budget of projects and popularity of projects for 2010-2013, we find that if the politician's margin of votes increased from previous election if they executed high budget projects and if the politician won for the second time he executed projects that were more popular but were of lower budgets as compared to the politicians who won for the first time. Also, it is important to note that politicians who were affiliated with the federal government executed lower budget projects as compared to others and if a politician is affiliated with the provincial government then the probability of executing less popular projects increased. Further when we look at the same specification for the years 2013-16 we see that if the politician won for the third time he executed higher budget project than those who won for the second time and the first time. If a politician is affiliated with the ruling party (both Federal and Provincial) then he executed project that were of higher budget. Here by comparing both tenures one thing we can observe is that the party affiliation matters in a sense that every party has their own policies and the parties behave differently according to their motives: in our results we can clearly see that the Punjab government party from the last elections (PML-N) which was ruling party in the Federal government in 2013-2016 preferred to execute high budget project in their safe seats as compared to the Federal ruling party of last tenure (PPP).

Also the results show that both the popularity of projects and budget of projects have a significant and positive impact on the change in votes in 2013 but more popular projects lead to more votes than high budget projects. Similarly, the myopic nature of voters is also proved by the results i.e. if the politicians executed more popular projects in the year before the election then there is positive increase in their votes i.e. if constituents vote according to the recent performance of the government and if their recent performance is good they overlook their past performance. Further we see that if the politician was well connected with the federal government then even if he executed more popular projects there was decrease in his votes, which may be because constituents vote according to the policies and overall performance of the government and the overall performance of the Federal government was perceived to be poor. Also, if the politician was well connected with the Punjab government and executed high budget projects, his votes decreased as well, may be because people vote to those who execute more popular projects as compared to higher budget projects.

Lastly, we found that in data of 2010-2013 projects, there was no significant relationship of the distance between the residence of politician's house and the projects executed by him. But if the connection of the politician was stronger with the Punjab government then he executed higher budget projects near his residence. For the same specification with 2013-16 data we found that as the distance from the politician's residence increases the project executed by them is of higher budget. But if the politician is well connected with the bureaucrats then he executed higher budget projects near his own residence. The politician may not be able to execute better projects or high budget projects near their own houses if they are not well connected because the projects are approved by different levels of government depending on the cost of the project and

these committees consists of Ministers, bureaucrats etc. and are also influenced by the PM and the CM.

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Appendix

Fig 1: how ADP projects are approved

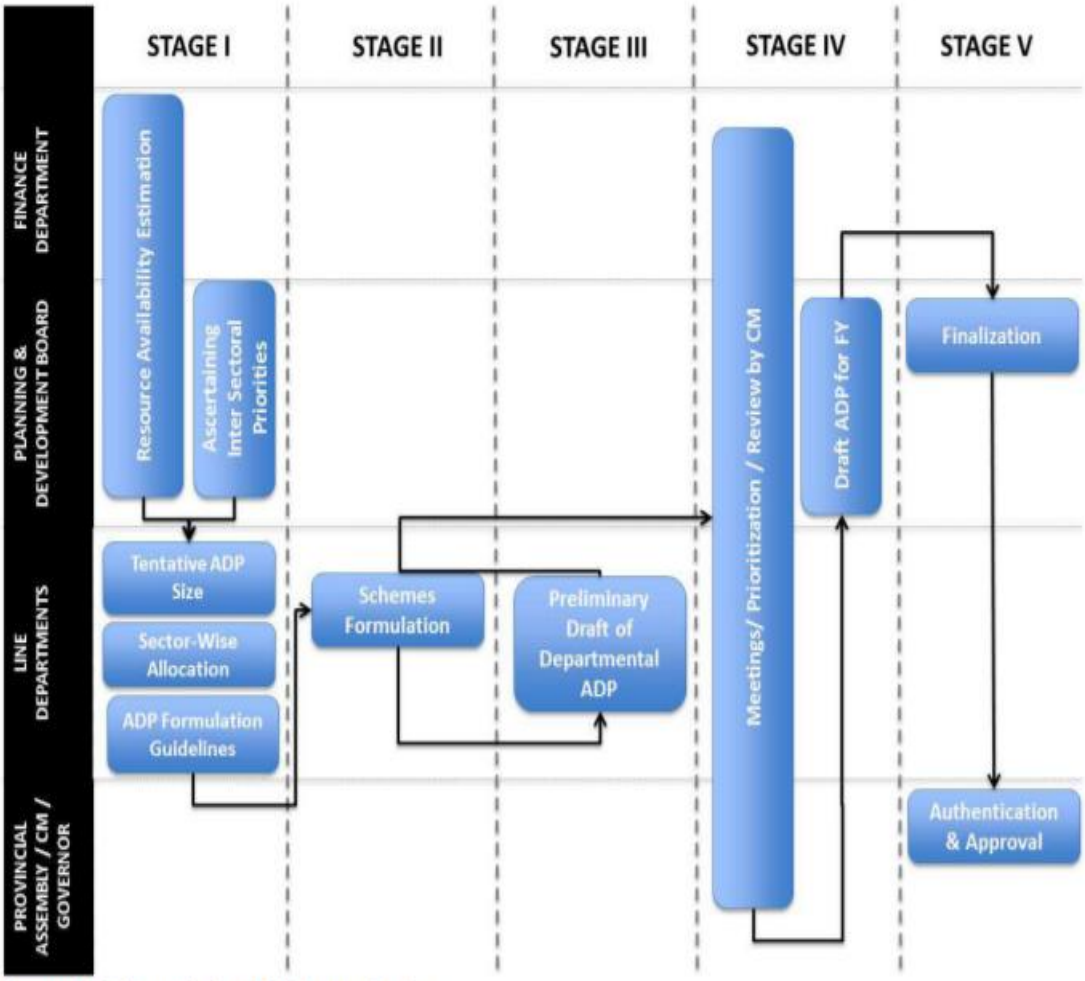

Figure 1: Schematic for ADP Formulation

Fig 2:

Fig 2(a) Members in PDWP

1.	Chairman, P&D Board	Chairman
2.	Secretary P&D	Secretary / Member
3.	Secretary, Finance Department	Member
4.	Secretary of the concerned Department	Member
5.	Secretary, Environmental Protection Department	Member
6.	Director, Punjab Economic Research Institute (PERI)	Member
7.	All P&D members	Member
8.	Director general M&E, P&D	Member
9.	Chief Economist, P&D Department	Member

Fig 2(b) Members in DDWP

1.	Divisional Commissioner	Convener
2.	District Coordination Officers in the division concerned	Member
3.	Divisional head of concerned department	Member
4.	Superintending Engineer, Irrigation & Power Department	Member
5.	Superintending Engineer, Highway & Building	Member
6.	Director (Development & Finance)	Member/ Secretary

Fig 2(c) Members in DDSC

1.	Administrative Secretary	Convener
2.	Representative of P&D Department *(Not below the rank of chief of section)*	Member
3.	Representative of Finance Department *(Not below the rank of additional secretary*	Member
4.	Director (Works), Communication and Works Department *(If building component is involved and technical advice is needed)*	Member

Table 8: Composition of DDSC

Fig 2(d) Members in DDC

1.	District Coordination Officer	Chairman
2.	Executive District Officer, Finance & Planning	Member
3.	Executive District Officer, Works & Services Department	Member
4.	Executive District Officer, concerned sector	Member
5.	District Officer, concerned department	Member
6.	District Officer Planning	Member/ Secretary
7.	TMO, respective TMA	Member

Fig 2(e) Members in Union Administration

1.	Union Nazim	Convener/Chairman
2.	Naib Union Nazim	Member
3.	Three councillors including one female	Member
4.	Union Secretary, Municipal Services	Secretary/Member

Fig 2(f) Members in

1.	TMO	Chairman
2.	Tehsil/Town Officer (Finance)	Member
3.	Tehsil/Town Officer (Planning)	Member
4.	Tehsil/Town Officer (I & S)	Secretary/Member

Fig 2(g)

1.	Deputy Chairman/Secretary, Ministry of Planning, Development and Reform, Government of Pakistan (in absence of DCPC)	Chairman
2.	Chairman, P&D Board, GoPb, Lahore	Member
3.	Additional Chief Secretary (DEV), P&D Department, Government of the Sindh, Karachi	Member
4.	Additional Chief Secretary (DEV), P&D Department, Government of the Khyber Pakhtunkhwa, Peshawar	Member
5.	Additional Chief Secretary (DEV), P&D Department, Government of the Baluchistan, Quetta	Member
6.	Additional Chief Secretary (DEV), P&D Department, Government of Azad Jammu and Kashmir, Muzaffarabad	Member
7.	Secretary, Development, Gilgit-Baltistan, Gilgit	Member
8.	Additional Chief Secretary, Development, Federally Administered Tribal Areas, Peshawar	Member
9.	Finance Division, Government of Pakistan, Islamabad	Member
10.	EAD, Government of Pakistan, Islamabad	Member
11.	Chairman, Pakistan Council of Science & Technology, Islamabad	Member
12.	Climate Change Division, Government of Pakistan, Islamabad	Member
13.	Relevant federal administrative ministry	Member
	MINISTRY OF PLANNING, DEVELOPMENT AND REFORM/PLANNING COMMISSION	
1.	Secretary	Member
2.	Chief Economist	Member
3.	Members, Planning Commission	Members
4.	Additional Secretary	Member
5.	Joint Chief Economist (Operation & Macro)	Member
6.	Adviser (Development Budget)	Member
7.	Chief, Public Investment Programming	Member
8.	Chief, Public Investment Authorisation	Member
9.	Chief, Physical Planning & Housing (PP&H)	Member
10.	Director general, Project Wing	Member
11.	Chief, Economic Appraisal	Member
12.	Chief, concerned section	Member
13.	Energy coordinator/official spokesman	Member
	BY SPECIAL INVITATION	
1.	Housing & Works Division, Government of Pakistan, Islamabad	Member
2.	Pakistan Engineering Council	Member
3.	Board of Investment	Member
4.	Infrastructure Project Development Facility	Member
5.	National Engineering Services Pakistan (NESPAK)	Member
6.	Environment Protection Agency	Member
7.	Representative of Pakistan Council of Architecture & Town Planning	Member

Fig 3

Fig 3(a) National assembly constituency map

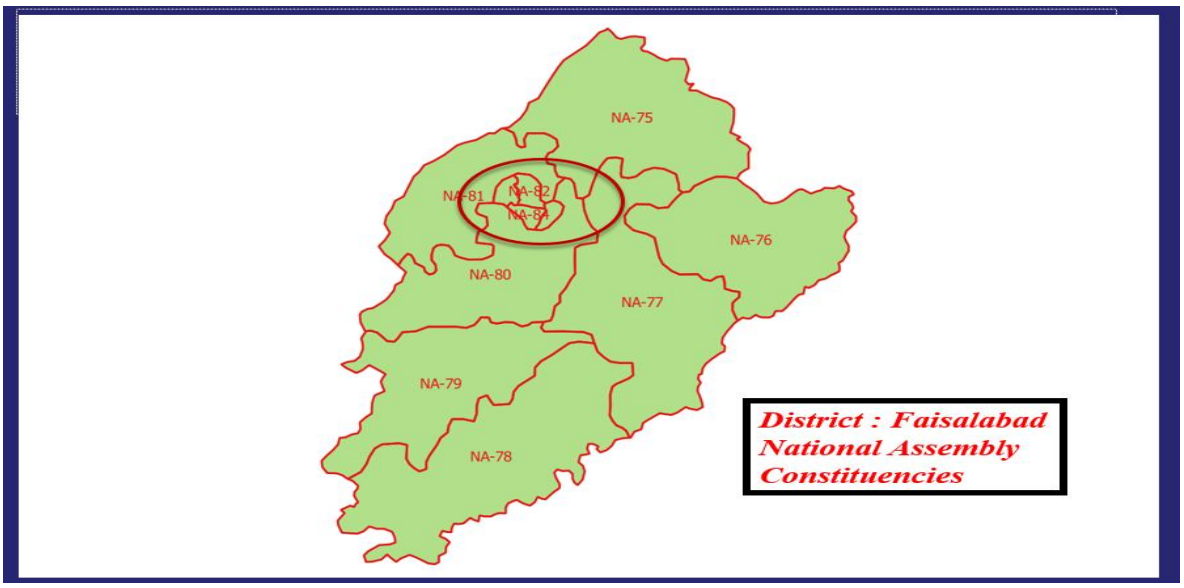

Fig 3(b) Provincial assembly constituency map

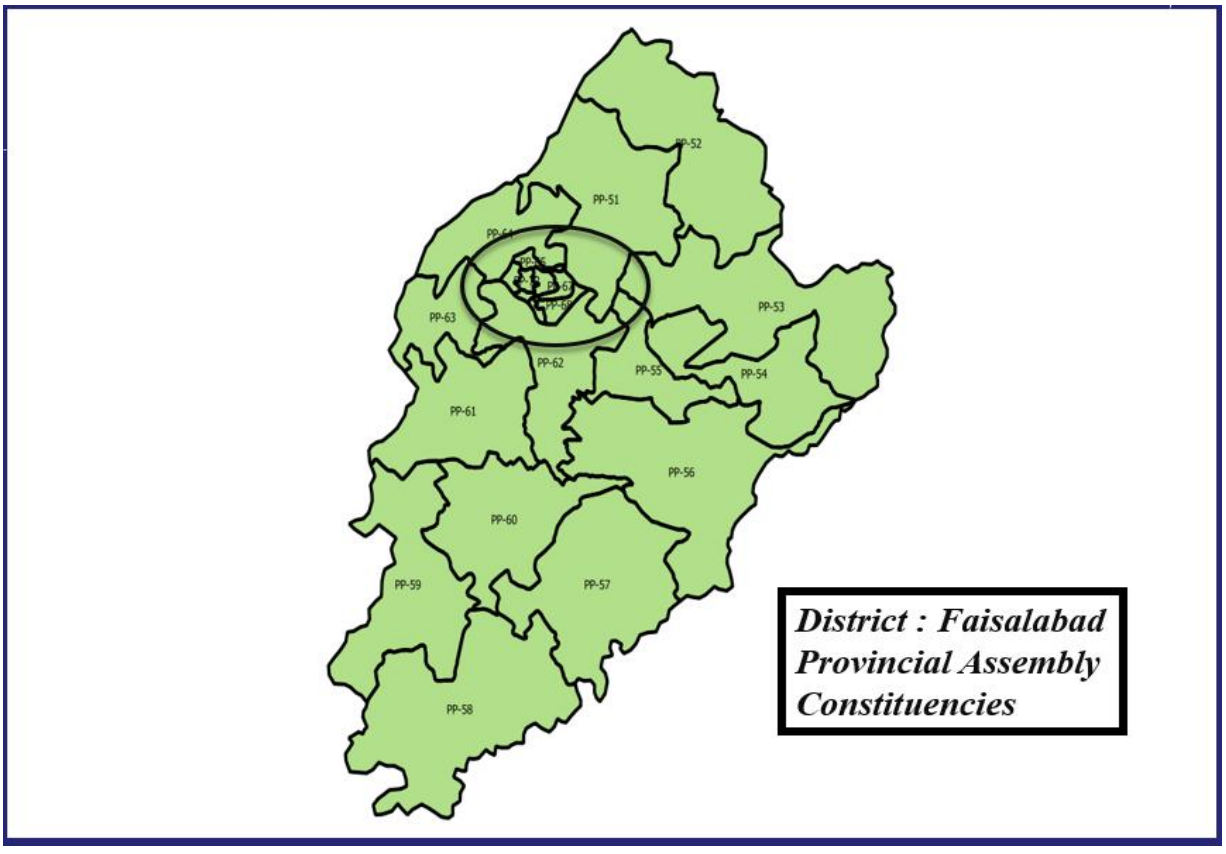

Fig 3(c) NA and PP boundaries

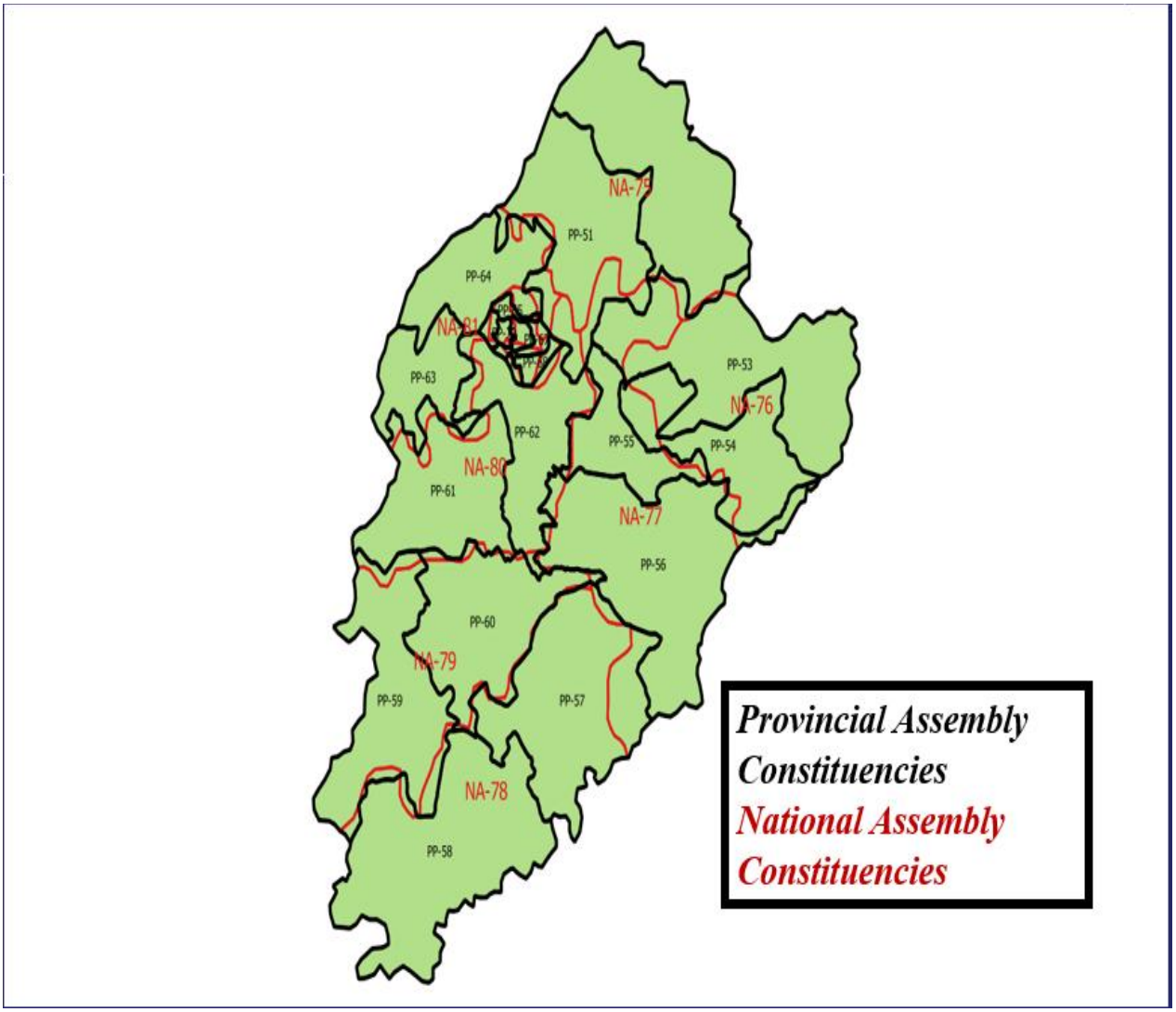

Fig 3(d): Mapping of the projects and residence of the politicians from 2010-2013 projects.

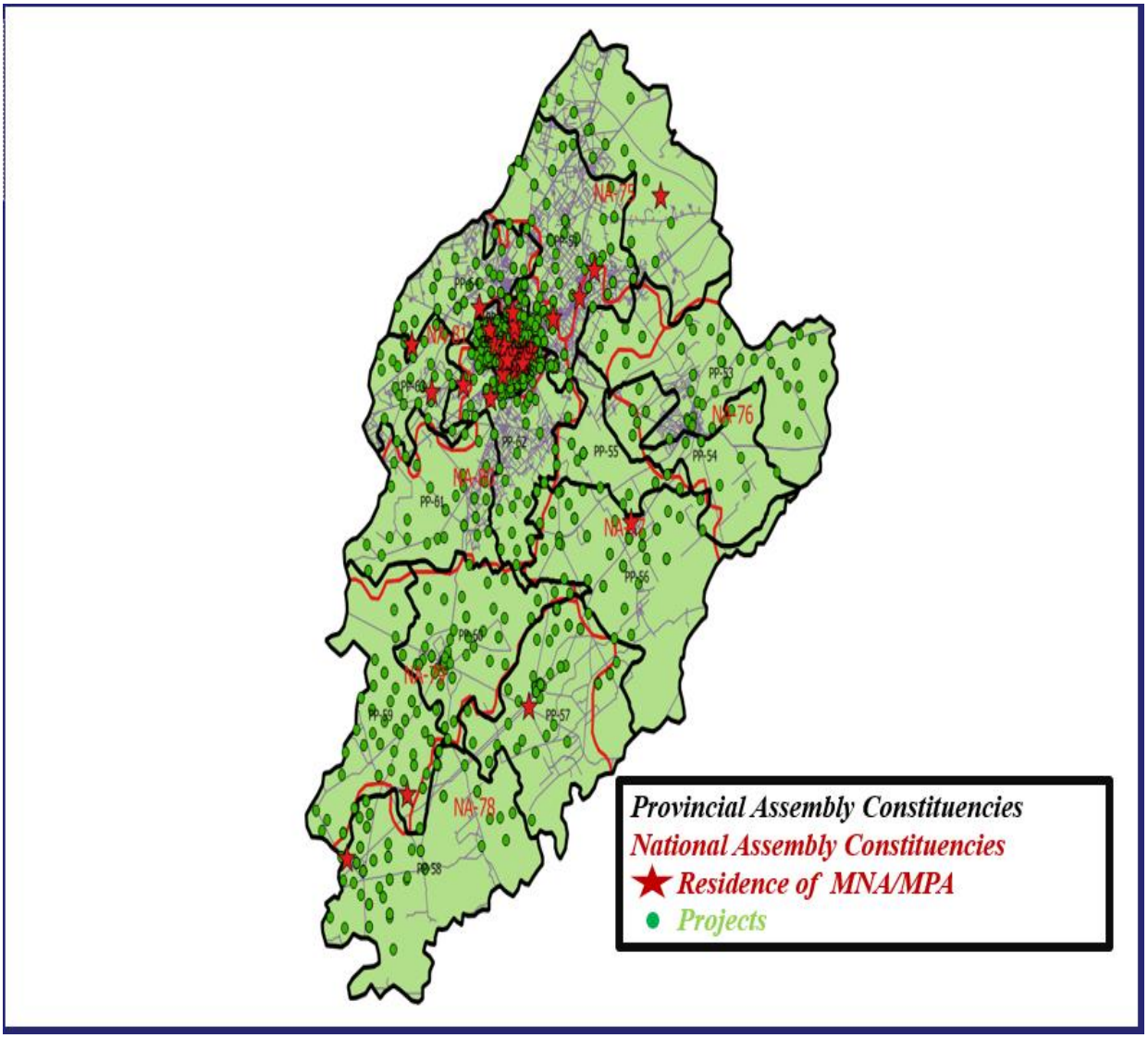

Fig 3(e): Mapping of the projects and residence of the politicians from 2013-2016 projects.