ICT Strategy in India: The Need of Rejuvenation

The aim of this article is to discuss the benefits of use of Information and Communication Technology (ICT) for the overall development of India. The article is also trying to analyse the weaknesses of Indian ICT strategy and policies and the possible arenas and segments that may be included into it to make it a globally competitive and efficient utility.

I. Introduction

In the present globalised and decentralised world, India cannot afford to keep its economy closed and secluded. Thus, an interaction between Indian economy and world's economy is inevitable. That is not a big problem. The real problem is to make Indian economy an efficient and competitive economy. Though there are many indicators for measuring the strengths and weaknesses of an economy, but the ICT strategy of a nation is very crucial to put it on a global map. It is very important that the ICT strategy and policies of a nation must not only be suitable but should also believe in a "holistic application and implementation". The ICT strategy and policy of a nation cannot afford to keep the different components of ICT [1] separate. Their amalgamation and supplementation must be done at a priority basis otherwise the ICT strategy and policy will not bring the desired results. The present ICT strategy and policies of India are deficient and defective.[2] This is so because most of the components required to make it a transparent, accountable and suitable strategy or policy are missing. The major among them are:

(a) Non-use of Public Private Partnerships (PPPs)[3],

(b) Absence of use of "collective expertise"[4],

(c) Lack of gender sensitive policy[5]

(d) Lack of security and technological safeguards[6],

(e) Lack of a techno-legal base in India[7],

(f) Absence of ICT use for justice administration[8],

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[1] These are e-governance, e-commerce, security of ICT infrastructure, cyber forensics, computerisation of various governmental departments, etc.

[2] Praveen Dalal, "Techno-legal compliance in India: An essential requirement", http://www.crime-research.org/articles/2130/

[3] The Indian concept of PPPs means working with "big corporation only" in a non-transparent manner.

[4] http://legalsolutionsindia.blogspot.com/2006/04/collective-expertise-need-of-hour.html

[5] http://legalsolutionsindia.blogspot.com/2006/06/gender-senstive-e-governance-policy-is.html

[6] http://perry4law.blogspot.com/2006/07/freedom-of-speech-and-expression-in.html

[7] http://perry4law.blogspot.com/2006/06/need-of-techno-legal-compliance-in.html

[8] http://perry4law.blogspot.com/2006/05/ict-and-justice-administration.html

(g) Inappropriate focus on cyber forensics and aggressive defense[9], etc.

II. The analysis

The use of Information and Communication Technology (ICT) has a social aspect as well. India being a Welfare State, the social structure cannot be given a complete go bye. This makes the analysis of ground reality of India inevitable keeping in mind the socio-economic, political and social conditions prevailing in India. *The biggest problem with Indian ICT strategies and policies is that "localisation" and "Indianisation" are missing. We cannot blindly adopt and superimpose foreign models and ideas.* They are bound to be a big flop show if we ignore the grass-root problems existing in India. Emphasis must be laid down upon solving the local problems by using local solutions.

Let us now analyse various components and perquisites of a sound ICT strategy and policy of India and see how far India is fulfilling the same. These are:

(a) Gender sensitisation

One of the ignored ICT issues is the "gender sensitisation" that must be adopted while formulating and implementing the ICT policies in India. It is commonly understood that men and women understand and use Computers and Internet differently. Thus, the policy decisions must make sufficient provision for adopting itself with this aspect. Within India also we must understand that the training, use and adoption of ICT must be "gender neutral". For a gender neutral technology we have to first place the women on an equal platform. They cannot be put on an equal platform till they have equal capacity and opportunity to use ICT. They cannot also effectively use ICT till their "feedbacks and concerns" are incorporated in the National Policies including the E-governance plans.

The position is worst when it comes to women that also rural women. In our society, whether they belong to the majority or the minority group, what is apparent is that there exists a great disparity in the matter of economic resourcefulness between a man and a woman. Our society is male dominated both economically and socially and women are assigned, invariably, a dependant role, irrespective of the class of society to which she belongs. It must be appreciated that a nation that does not respect its women cannot be described as a civilised nation at all. Such a nation cannot grow and develop and will ultimately perish due to its own rudimentary and tyrannical dogma. Thus, the national consensus should concentrate on betterment of women by suitably empowering them. The plight of the women, however, cannot be improved till they are duly represented in the "power structure" of the nation. In a democratic country the voice of women can be heard only to the extent they are sharing the power structure in the supreme governance of the country.[10] Thus, ICT can play a major role in women empowerment if they are provided employment opportunities at the village level after providing them suitable

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[9] http://cyberforensicsinindia.blogspot.com/2006/03/preventing-cyberspace-violations-by.html

[10] http://www.countercurrents.org/gender-dalal080305.htm

training. We have to open more village kiosks so that greater women participation can be there. This cannot happen till we first make the e-governance and ICT strategies and policies transparent and accountable. Mere computerisation is not e-governance.

Further, the ICT grant goes into crores of rupees, pocketed out of public money, which is sufficient to bring India on the map of an ICT leader. The citizens must liberally use the provisions of Right to Information Act, 2005 (RTIA-05) to ask for an account of every single rupee granted for the development of ICT and e-governance in India. No ICT and e-governance plan is bound to succeed till the Government is both accountable and transparent for the public funds used for that purpose. Till the Government is sensitive to these mandates of accountability and transparency nothing will change in India. Alternatively, we need a "CIVIL REVOLUTION" where the public must demand accountability and transparency from their representatives. After all they are representing us and are working for our betterment. A list of all ICT initiatives of the Government must be prepared along with the amount of funds allotted. Then a regular appraisal must be made to determine how much amount has actually been spent for the allotted purpose.

(b) Collective expertise

The problem with Indian version of ICT development is that the adopted strategies and planning in this regard are not only unscientific but equally unproductive. It seems the concept "disguised unemployment" aptly applies while selecting various experts for meeting this job. Instead of a homogeneous group of experts who can substantiate and supplement a sound ICT planning and strategy, the preference is given to selective experts of a single type. The selection of experts must be made from all the respective fields so that a holistic picture can be produced. It is absurd to select a panel consisting of members falling under a single category. This not only results in a higher rate of investment and learning cost but equally the success rate is almost missing. Thus, instead of sanctioning of a huge budget in the form of "e-governance initiatives" the same must be first bifurcation on a scientific basis. Different units and stages of a project must be financed independent of each other. Another area of concern is the lack of transparency and co-ordination in the governmental functioning. The government experts do not wish to allow any external expertise and "public participation" is a rare sight there. Though, the face saving exercise of inviting "public comment and suggestions" is often followed in India but by and large that remains an empty formality. Another area of concern is that the government, for reasons best known to it, does not wish to wither away its traditional mode of functioning and any new innovation, technology and effective measure is protested and guarded against as an "alien enemy". For instance, the IT Act, 2000 was enacted in the year 2000. After the lapse of almost 6 years we have no effective infrastructure for either e-governance or e-commerce. The will seems to be missing here. The government is also fond of cautious approach and it prefers to adopt foreign models instead of finding and applying the grass root level solutions. It is difficult to digest that developed countries standards can suit Indian socio-economic conditions. India must actively come forward to encash the benefits of ICT with a scientific and systematic approach. It should neither blindly follow foreign models nor wait for things to happen by miraculous chance. The fill in gap actions need to be avoided and something original must be tired. The endeavour of the government should

be maximum happiness for maximum people. However, what I strongly endorse is that we cannot have a fruitful result till all of us join our expertise in respective fields so that a holistic picture can be provided. In my opinion, whenever we have to discuss a problem regarding e-governance, we must start the ball rolling and take views of respective experts in different fields. For instance, whenever an ICT issue arises, the people involved in the technical, administrative, legal, social fields etc must share their respective views regarding that. A collective work must be finally produced before the government so that more pressure can be put upon the government. This way we will have a holistic picture of the same. If we take just legal perspective, then it is useless. The same rule applies to other fields as well. It is high time that we must express ourselves as a "collective expertise" rather that "individual expert". The existence of the former will be very difficult for the Government to deny.

(c) An ideal public-private partnership

The Public-Private Partnership (PPP) is the key to Indian ICT initiatives provided that the process is not limited to selective experts only. We should choose a homogeneous group of experts who can substantiate and supplement a sound ICT planning and strategy rather than giving preference to big companies. In India the Government plays the card of PPP with big companies only and individual expertise is never sought. The blind trust upon big companies to the exclusion of the "real individual experts" is the worst nightmare for India ICT strategies and policies. This nightmare comes true repeatedly and frequently in the form of "censorships" of Internet and other ICT mediums in the absence of "techno-legal experts" to manage the same in a legal and constitutional manner.[11] This shows that the Government's present PPPs is nothing more than a "marriage of convenience". It do not wish to go further and invite experts who can manage situation like these. The present Intenet Service Providers (ISPs) in India do not even know the blocking procedure of a "single site" and in the absence of a techno-legal knowledge they end up in blocking the entire domain. The recent blocking of "blogspot" is a classical example of the same that has not yet been fully restored. This blocking episode happened for the second time and keeping in mind the present "expertise" of Government and ISPs we can expect another one very soon. The Government do not wish to learn lessons from its mistakes and thisforces it to exhibit a "knee-jerk" reactyion to difficult situations. The Government must acquire expertise in "crisis management" and for that it needs "techno-legal experts" rather than surrendering the ICT policies to few big corporations.

The government experts must also consider external expertise and "public participation" should be a common feature. Though, the face saving exercise of inviting "public comment and suggestions" is often followed in India but by and large that remains a mere formality. It must be appreciated that India is the leading producer of talent in the ICT field. If we have such a large talent pool, it is ironical that we still are struggling to produce a world class ICT and e-governance infrastructure. Even a layman may sometimes provide valuable inputs. The need of the hour is to consolidate and consider the "public inputs" and not to ignore them. The public comments and suggestions must

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[11] http://perry4law.blogspot.com/2006/07/freedom-of-speech-and-expression-in.html

be cateloged and indexed properly as they are the voice of the nation. Till now I have not seen even a single Government Department or initiative that has shown a positive and justice oriented attitude towards various public inputs. I am not aware when was the last time the Government came out with a draft or document containing public inputs. It seems the will is missing in India. I hope the concept of Public-Private Partnership will get its deserving share in India and its applicability and scope will not be limited to the privileged segments only.

(d) Security mandates

India is on the verge of a technology revolution and the driving force behind the same is the acceptance and adoption of ICT and its benefits. This technology revolution may, however, fail to bring the desired and much needed result if we do not adopt a sound and country oriented ICT strategy. A sound ICT policy presupposes the existence of a sound and secure ICT base as well. IT is a double edge sword, which can be used for destructive as well as constructive work. Thus, the fate of many ventures depends upon the benign or vice intentions, as the case may be, of the person dealing with and using the technology. For instance, a malicious intention forwarded in the form of hacking, data theft, virus attack, etc can bring only destructive results. These methods, however, may also be used for checking the authenticity, safety and security of one's technological device, which has been primarily relied upon and trusted for providing the security to a particular organisation. In fact, a society without protection in the form of "self help" cannot be visualised in the present electronic era.

It is good to see that Government is advocating the e-governance plan in India but the big question is what it has done to make it secure and adaptable to international standards. For instance, every bank is claiming to be providing "Internet banking facilities" but how many banks have complied with the techno-legal requirement as prescribed by the IT Act, 2000 and the Reserve Bank Guidelines.[12] It is very important to bring in place the security mechanisms so that the Banks and other players may establish due diligence in this regard. The due diligence requirement is very stringent and the criminal sanction behind this is too harsh to be ignored.[13] Further, the Government has also not considered the legal risks associated with e-commerce. They are too numerous that their continued ignorance may cost India the valuable foreign revenue.[14] Another area of concern is the use of alternative means to carry cash. Nowadays it is common practice to use Credit cards, Debit cards, ATM Machines, etc. It is very important to use preventive measure for securing these alternative means of carrying cash.[15] The need of security mechanisms is very pertinent and if ignored may make India a safe heaven for cyber crime and misuse of ICT. The e-governance initiatives of India, if proved successful, would again cause lot of troubles in the absence of security mechanism at place. The moment computers will be linked to Internet, an unsecured and unsafe ICT base will collapse. I hope the recent budget of Rs 23,000 crores also carries some portion for the security purposes as well.

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[12] http://cyberlawindia.blogspot.com/2005/12/nternet-banking-and-its-challenges-in.html
[13] http://perry4law.blogspot.com/2006/05/due-diligence-for-companies-and-its.html
[14] http://perry4law.blogspot.com/2006/01/legal-risks-of-electronic-commerce.html
[15] http://cyberforensicsinindia.blogspot.com/2006/02/atm-frauds-some-preventive-measures.html

Otherwise, that will be a pure wastage of not only that amount but also the amount that has to be spend to neutralise the damages to the ICT base due to unsecured and unprotected computer systems.

(e) The Governmental apathy

The best instance of a sound ICT and e-governance base is a hassle free communication between the Government and its citizens. The same can be efficitively done if the e-mail allotted to various Ministers and Government officials are accessed at least once a weak. Any person who has communicated with the Government or its officials through e-mails can testify that the Government and its officers are adamantly negligent in responding back. For instance, the majority of Governement officers at Ministry/Department of Information Technology are very negligent in responding back. The Government as well as their officers are "Public Servants" and they must coordinate and cooperated with their citizens. However, the response at DIT/MIT is not only pathetic but also against the very ideal they are promoting, i.e. e-governance. Thus, it seems the inverse relationship of e-governace is applicable in its extreme rigours at DIT/MIT. A nation can develop at the fastest speed if we have capable and public interest respecting personel manning various Government departments. If the premier department responsible for providing a sound ICT base in India is so indifferent and lethargic to public communications then we have no right to claim ourselves as an ICT oriented nation.

(f) Judiciary and ICT base

The increasing backlog of cases is posing a big threat to our judicial system. The same was even more in the early 90 but due to the computerisation process in the Supreme Court and other courts that was reduced to a great extent. However, the backlog is still alarming.[16] This is because mere computerisation of Courts or other Constitutional offices will not make much difference. What we need is a will and desire to use the same for speedy disposal of various assignments. There is a lack of training among Judges regarding use of Information Technology (IT). We need a sound training of Judges first before we wish to capatilise the benefits of IT. A good initiative has already been taken by the Supreme Court.[17] However, the same appears to be dormant for the time being. Thus, we need a public initiative as well.[18] The resource titled "Electronic Courts in India" is making a database of different situations that the Courts may face while discharging the judicial functions. As far as the computerisation is concerned, the Judges of all courts in Delhi have their own computers that are as per the latest configurations. However, the need of the hour is greater than mere computers providing. For instance, there was a proposal in the Delhi High Court where every computer of the concerned Judges was to be connected to the Central computer. Thus, whenever something is typed it would automatically go to the central computer and from there we can have the "Certified copies" of the concerned documents. That proposal has been applied to a

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[16] http://www.supremecourtofindia.nic.in/new_s/pendingstat.htm
[17] http://www.indianjudiciary.in/
[18] I tried the same and it is available at http://indian-judiciary.blogspot.com/ . This resource is based on the ground reality that mere computerisation will not serve the purpose.

greater extent and now it is much easier to get the certified copies. Further, cause lists, name of the Judges, Court numbers, name of the lawyers, etc are all available on the Internet. That has also facilitated the speedier disposal of cases. However, we need more.[19] We need a complete utilisation of ICT for the effective disposal of cases and witness protection.[20] For instance we can use the facility of "Video Conferencing" on a large scale. Presently, it is used in some cases. We can use the concept of electronic governance for Witness protection. We can use the medium of Internet for filing of cases, bail applications, serving of notices, etc.[21]. These are some of the issues that are above mere computerisation. With the present pace, it may take at least 10 more years to be adopted. If we all take some pain and provide our own contributions that that task may be achieved within 1 year.

Then another concern is regarding the security of the ICT infrastructure. We can provide the concerned officer with the necessary training but it is very difficult to make them technically aware about the security aspects. Thus, a technological base must also be established at the Court that may provide the security inputs to the Courts. A special attention must be paid to the Cyber Forensics aspect. It is useful for the Investigative, Prosecution and the judicial authorities.

The real problem is not the functioning/management part but the procedural part. The procedural laws like Code of Criminal Procedure, 1973, Code of Civil Procedure, 1908, Indian Evidence Act, 1872 are too cumbersome that lot of precious years of parties are wasted. At this point we can use the ICT to speed up and streamline the judicial system. The first step is to lay down a foundation for e-governance and then we must effectively use the ICT for the betterment of Indian Judicial system. We have to cover a long distance yet because mere computerisation will not serve any purpose. If we have to succeed we have to learn to digitise papers and provide free and easy access to the litigants and other players involved with the system. We must learn how to establish a base for electronic filing, how to use e-mails and chatting systems for serving notices, summons and warrants and how to get the presence of the crucial witnesses through video-conferencing, etc. The safest bet is for the witness who can be sufficiently protected from the retaliatory tactics of the offenders by an active use of ICT base. Let us hope that these initiatives will be adopted very soon.

(g) A holistic approach is needed

A sound and efficient ICT base cannot be established in India till that nation at large wish it to be so. It is neither the sole prerogative nor the sole responsibility of the Government alone. The citizens, companies, NGOs, etc must come forward to contribute their part if the Government allows them to do so. The media plays an important role in the overall development of a nation. The same equally applies to India as well. It brings the

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[19] http://indian-judiciary.blogspot.com/2006/01/electronic-governance-and-justice-in.html

[20] http://cyberlawindia.blogspot.com/2006/03/witness-protection-and-e-governance.html

[21] http://perry4law.blogspot.com/2006/02/electronic-legal-notices-negotiable.html

irregularities, corruption and illegalities in various governmental and public dealings. It is a benign function that must be continued with a precaution that none should be personally attacked or there should not be a "news making". I still remember the "sting operation debate".[22] We cannot take an "extreme view" in any circumstances. Every situation has positive and negative aspect. If we mention about the positive aspects only ignoring the negative one, then we would be failing our duty. Similarly, if we mention the negative aspects only bypassing the positive one, then we would be demolishing the very institution against which we are leveling the allegations. Thus, a holistic approach in every perspective is the need of the hour.

(h) E-governance and informational rights

Transparency, accountability and authenticity (TAA) are the pre-requisites for good governance. These are, generally, not found in a "traditional paper based" governmental functioning. That is why use of ICT, in the form of e-governance, in governmental functioning assumes significance. Thus, e-governance can not only ensure "TAA" but equally makes Right to Information U/A 19(1)(a) and Right to Know U/A 21 of the Constitution of India a meaningful reality.

The right to impart and receive information is a species of the right to freedom of speech and expression guaranteed by Article 19(1) (a) of the Constitution of India. A citizen has a Fundamental Right to use the best means of imparting and receiving information. The State is not only under an obligation to respect the Fundamental Rights of the citizens, but also equally under an obligation to ensure conditions under which the Right can be meaningfully and effectively be enjoyed by one and all. Freedom of speech and expression is basic to and indivisible from a democratic polity. The right U/A 19(1) (a) is, however, available only to the citizens of India and non-citizens can claim only right to know U/A 21 of the Constitution of India. Recognising the right to information (RTI) of "citizens" of India, the IT Act, 2000 and RTI Act, 2005 (RTIA-05) have been enacted. The RTIA-05, if implemented properly, could prove a boon for the e-governance initiative because the required information can be asked for and provided by using the e-governance base. The following provisions of the IT Act, 2000 reflect India's concern to bring transparency in the functioning of governmental affairs through e-governance: (a) Legal recognition of electronic records (section 4), (b) Legal recognition of digital signature (section 5), (c) Use of electronic records and digital signature in governmental dealings (section 6), (d) Retention of electronic record for certain period (section 7), (e) Establishment of electronic gazette (section 8), etc. However, these provisions provide only a non-absolute right to claim a sound e-governance base (section 9). The beneficial concept of e-governance can be utilised for the following purposes:

(1) To have access to public documents.
(2) For making online payments of various bills and dues.
(3) To file statutory documents online[23].

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[22] http://perry4law.blogspot.com/2005/11/legality-of-sting-operations-under.html
[23] Recently the SEBI has allowed filing of specified documents online by the listed companies vide, SMD/Policy/Cir-17/02 dated 3rd July 2002.

(4) To file the complaints, grievances and suggestions of citizens online.
(5) The online facility can be used to enter into a partnership the appropriate government in cases of government contracts.
(6) The citizens can use the online facility to file their income tax returns[24].
(7) The citizens will enjoy the facility of online services.
(8) The various departments of the government can be computerized and centralized and the responsibility for its proper maintenance can be fixed on an agency like National Informatics Centre.

This sort of arrangement will definitely help in establishing a better state-citizen relationship. It will further, result in bringing transparency in governmental functioning as the RTIA-05 is providing right to citizens to ask for matters pertaining to governmental functioning.

III. The expected ICT strategy in India

The use of ICT, including e-governance, has the potential to turn a Developing Nation into a Developed Nation. The same is not only possible regarding India but will also be her ultimate destiny. However, mere empty words and deficient policies will not serve any purpose. We have to be dedicated and committed towards that objective. Till we make the Government and bureaucracy accountable and transparent nothing can happen in India. The key to achieve that purpose is "e-governance" that has the potential to eliminate corruption and bring order of the day within the Governmental functioning.

Strangely enough, the concept of e-governance operates in a peculiar and inverse manner. It has not only the potential to bring transparency but also the capacity to breed corruption. It has the potential to bring transparency and eliminate corruption if we adhere to it in its true letter and spirit.[25] It can be an undefeatable tool of corrupt practices if there is no accountability and transparency and the benign concept of e-governance is used as a façade to misappropriate public money by acting in papers only. There is a big gap between what must be done and what is actually done. Thus, there is a dire necessity of making the Government and the persons manning various Departments accountable and make their functioning transparent and fair. One of the tools that can be used to bring that result is the use of Right to Information Act-05 (RTIA-05) along with e-governance.[26] The success of India's ICT agenda depends upon few inevitable factors. These are:

(1) Transparency in dealings,
(2) Citizen centric interactions,
(3) Enforcement of RTIA-05 in its true letter and spirit,
(4) A sound e-governance and e-commerce base,
(5) Decentralised activities, etc.

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[24] Assessment year 2002-03, the bulk filing of returns of the employees by the employer on computer readable medium has been recognised by Sec.139 (1A) of the Income Tax Act.1961.
[25] http://perry4law.blogspot.com/2005/06/electronic-governance-and-transparency.html
[26] http://legalsolutionsindia.blogspot.com/2005/11/e-governance-and-informational-rights.html

Till now, we have none. The ICT is meant for the citizens at large and not government. If its benefits cannot be availed of by the common man, there is no use of merely following the tag of "technologically advanced country". The net effect of any project must be evaluated. E-governance is not computerisation alone but an effective utilisation of Information Technology for the common benefit of public at large.[27]

The marginalised and deprived people cannot be benefited from this ICT drive till they are first provided with the basic needs that can keep their body and soul together. Let me share my personal experience with you. Once I was explaining the benefits of e-governance to a poor person. He kept on listening and then he asked me a question that I could not answer. You might be guessing what was that question? *He asked me whether this Internet and computer can "download" a "roti"[28]?* I was clueless and immediately realised that we have to work in a systematic and scientific manner so that the computer can download a "roti" for all. We can afford to allow unemployment to exist if we can feed our entire population. But we cannot afford to allow even a single person to die of hunger, much less by committing suicide due to starvation, by giving priority to e-governance initiatives. This is the bitter truth that we must accept.

For a successful ICT project technology plays only 15% role, while rest 85% role is being taken care of by project management. Human resource development of the existing workforce in order to inculcate appropriate skills and attitudes is a critical factor. Equally important is the establishment and set up of the basic infrastructure, which is conducive to the efficient functioning of the e-governance. A sound communication infrastructure is essential for easy access. It should be innovatively used to ensure that no section of society is deprived of the benefits arising therefrom. Governments have to learn to digitise documents quickly and effectively so that the ICT revolution becomes a reality in India.

Source: http://cyberlawindia.blogspot.com/2006/07/ict-strategy-in-india-need-of.html

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[27] http://perry4law.blogspot.com/2005/12/bilateral-working-group.html
[28] "Roti" means food in this case.