Message of Water, Irrigation and Electricity Minister,Ato Motuma Maqasa

The Ministry of Water, Irrigation and Electricity in its second Growth and Transformation plan puts potable drinking water and sanitation programs, irrigation and drainage studies ,design and construction , river basin and master plan studies, and power development and Alternative Energy Development and Promotion as major areas.

In the second Growth and Transformation plan of the country set with the newly set water supply standard , the ministry plans in the rural areas 25 liters per person per day within a kilometer and increasing the coverage to 85% and from these 20% benefited from potable water.

In urban areas also plan to reach supply of clean drinking water100 liters for level one cities , 80 liters for level two , 60 liters for level three, 50 liters for level four and 40 liters for level five per person per day and reach the coverage to 75% with all potable water supply.

In the first year of the second GTP around 5.2 million citizens have got access to clean drinking water as a result the coverage of the rural areas 63.1%, urban 52.5% and the national level has reached to 61%. In 2009 fiscal year the ministry have planned to increase the coverage of drinking water at rural areas 69%, urban areas 60% and the national level 67% with these wide range plan around 6.8 million citizens will be benefted. From these 5.4 million rural and 1.4 million urbans will be benefited.

At the end of the second GTP ,the ministry has been planned to carry out in the design and study 250,000 hectares ,and in the construction 280,385 hectares irrigation and drainage projects . And out of these last year were able to study and design 20,000 hectare and in the construction of irrigation 3,422 hectare. In the present physical year also planned to study and design 2 projects and in the construction of irrigation 7 and the completion of 2 projects works has been set.

Our country needs high power in the transition from agricultural leading economy to industrial leading economy and establishing the ground to reach the target to middle income countries in 2017 EFY . Many mega power generating projects are under constructions to reach our generation capacity 17,347 MW at the end of 2012 EFY.From the many mega projects under construction ,the GERD is the one which is realizing with our nations and nationalities and government effort's has been reached its construction 54%.Genale Dawa III/254MW/, Repie solid waste power generation/50MW/ that are under construction are expected to be completed these year. Geba, Koyesha,Genale Dawa 6 hydro power projects and Ayesha, Etya one, Debre Berhane wind power generation projects constructions are going to be started in 2009 EFY. On the other hand the ministry plans to construct and distribute 31,400 biogas digesters, 400,000 solar home systems, 3,600 institutional solar systems and 3,600,000 small solar lamps/ "Masho"/ at the end of the second GTP period. To accomplish these target of distributing alternative energy development and promotion in 2008 fiscal year 2,605 biogas plants, 8,345 solar home systems were distributed to users.

In 2009 fiscal year 3,340 biogas plants will be constructed and 30,054 solar systems will be installed and distributed.

The policy of Water resource Management of the ministry clearly states that equal distribution of water usage in the country and benefit of the peoples living in the catchment areas from the economic and social development and protecting the natural resources in the basin boundaries with proper and sustainable way is crucial.

Thus, the Ministry works with practising its Water Resources Management Policy and Strategy to make a real and is being processed in the basin to promote integrated water resource management principles on the implementation of extensive and international level. At the end of the second Growth and Transformation Plan water shed areas that were in the first Growth and Transformation Plan which were 1,000,000 hectares to 2,382,283 hectares . organization of Basin Authority are to be increased from three to six.
It was planned to implement in the last year fiscal period , 6,063 hectares of land on the Tekeze, Gilgel Gibe, rift valley and Tana-Beles . On 5,547 hectare of land 30.6 million seedlings were planted in good standing with ease to perform their level of interdependence and nurseries.
In 2009 fiscal year also, by increasing the participation and benefit of women's and youth ,on 119,538 hectare of land, the integrated basin development will be implemented and covered by different plants .And nursery Sites are expected to create job opportunities for 33,036 citizens.

In general, with our long democratic development root, very large-scale development activities and positive and tangible results can be reached, which serve as the cornerstone of our time victories as parts of middle income countries trip.Therefore, in the remaining years of the second growth and transformation plan period needs to work hard than before to realize the plans and show to the world that we can get out of poverty.In addition rent-seeking and mal-administration that are the danger of our governmental systems needs to be pointed out one by one and will be resolved and fought with change agents that enable us to attend our renaissance.

Thank you!

List of Abbreviations and Acronyms

KM	–	Kilo meters
KWh	–	Kilo watt hours
MW	–	Mega watt
GWh	–	Giga watt hours
GERD	–	Grand Ethiopian Renaissance dam
GTP II	–	Second Growth and transformation plan
KV	–	Kilovolt
UEAP	–	Universal Electricity Access Programme
TVET	–	Technical, Vocational and Education Training
EFY	_	Ethiopian Fiscal Year
Wash	–	Water Supply, Sanitation & Hygiene

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1. Introduction

Our Developmental and Democratic Government is exerting tremendous efforts with having grand vision in order to list our country in the level of middle income countries. Developmental policies, strategies and plans are also being implemented in accordance with the grand vision and significance. The Ministry of Water, Irrigation and Electricity is one among few sectors bestowed with due emphasis to make the vision successful nationwide. Thus, the Ministry of Water, Irrigation and Electricity along with organizations accounted to it, regional states and other stakeholders have the duty to implement the Second Growth and Transformation Plan (GTP II) of the sector mainly in areas of clean water supply, irrigation and drainage development, Electricity supply and related activities such as watershed development and management, and groundwater study ,design and development. In this piece, the second GTP performance of the 2008 Ethiopian fiscal year is reviewed, therefore all are welcomed to read.

2. Water Supply and Sanitation Sub Sector

Main Objectives of the First Year (2008 Ethiopian Fiscal Year/ EFY/) of the Second Growth and Transformation Plan

2.1 Increase the number of clean Water beneficiaries by 6,606,736 /5,297,082 from rural and 1,309,654 from urban dwellers/ from where it was at the end of 2008 EFY.

2.2 Improve the rural water supply coverage from 59% which was in 2007 EFY to 64% according to the new water supply service standard set, and from this 4% will be served by piped water supply system.

2.3 According to the newly set water supply standard, the urban water supply coverage will be improved from where it was 51% in 2007 EFY to 55%.

2.4 The national water supply coverage will be raised from where it was 58% in 2007 EFY to 63%.

2.5 Reduce non functionality rate of rural water supply schemes from where it was 11.2 at the end of 2007 EFY to 11% at the end of 2008 EFY

2.6 Reduce NRW (non revenue water) from where it was 39% at the end of 2007 EFY to 35% in urban which are categorized from level 1 to level 3.

2.7 Increase those towns that can give sewage disposing service by creating sewage disposal department in their organization by 20% from towns which are categorized from level 1 to level 4.

2.8 Construction of 42,308 new rural water schemes from different water sources.

2.9 Rehabilitation of 11,250 non-functional existing rural water supply schemes.

2.10 Conduct study and design works in 60 towns' water supply projects, construction of new water supply projects for 90 towns, conduct rehabilitation and expansion works for 50 towns and completion of sewerage management and disposal works for 5 towns.

2.11 Creation of employment opportunity for 834 higher, 2600 medium professional and 92,100 artisans and caretakers as well.

The achievements of 2008 Ethiopian fiscal year objectives from GTP II **perspectives were explained below:**

The Construction of 21,884 new rural water supply schemes at community level (excluding the construction of 3487 scheme by self supply) and 29 urban water supply projects were completed at the end of the budget year, and have been serving the community. 4,540,338 rural and 702,357 urban dwellers totally 5,242,695 (2,568,920 females) population have been served by clean water supply in accordance with the newly set standards by those completed schemes.

Owing to the above construction achievements, water supply coverage was increased to 63.1% in rural, 52.5% in urban and 61% at national level at the end of the year.

Among the completed rural water supply schemes, 412(2%) were rural pipe systems with public taps which served 860,000 rural people or 19% of the rural beneficiaries.

2008 EFY Clean Water Supply Beneficiaries In Numbers

No	Regions	Rural	Urban	National
1	Tigray	10,1884	29,574	131,458
2	Afar	53,175	-	53175
3	Amhara	1,473,594	173,796	1,647,390
4	Oromiya	1,619,467	307,536	1,927,003
5	S/N/N/Peoples	1,053,553	-	1,053,553
6	Somale	112,636	110,181	222,817
7	B/Gumuz	38,966	-	38,966
8	Gambel	11,035	1,555	12,590
9	Hareri	67,684	79,770	147,454
10	DireDawa	8,289	-	8,289
11	Addis Abeba	-	-	-
Total		4,540,283	702,412	5,242,695

Clean Water Supply Coverage in %

No	Regions	Rural	Urban	National
1	Tigray	55.0	54.0	54.2
2	Afar	34.0	39.0	36.0
3	Amhara	65.8	59.9	65.0
4	Oromiya	54.6	45.5	53.3
5	S/N/N/Peoples	**	**	**
6	Somale	45.6	51.2	46.4
7	B/Gumuz	54.4	45.8	52.6
8	Gambel	63.2	34.5	55.9
9	Hareri	60.0	67.0	63.3
10	DireDawa	71.5	55.0	61.1
11	Addis Abeba	-	90.0	90.0
		63.1	52.5	61.0

**** Not reported from the Region as per GTPII standard.**

In addition to the completed rural water supply schemes, 2500 rural water supply schemes were under construction process, which means 1283 of them were over 50% while 1,217 were below 50% construction status.

The ongoing rural water supply schemes incorporated 725 rural pipe systems with public taps.



One can concluded that special priority was given to large water supply schemes that means to rural pipe systems with public taps which could benefit many people when the completed and ongoing water supply schemes (24,384) were seen relative to the plan which was more than 42,000.

116 urban water supply projects were under construction process of which the construction of 40 town projects were over 50% and the construction of 76 towns were under 50% construction status at the end of the budget year. It is believed that when the projects under process will get completed in the next budget year, the number of towns with water supply projects serving the community will be higher than the number of towns with completed projects in the budget year.

The study and design works of 61 small towns was completed while 88 towns were under different implementation status. 4 sewerage projects were under construction process (2 over 50% & 2 under 50%) and 3 projects were under study and design (nearly to be completed and 2 below 50%) in Addis Ababa.

In addition to the construction of new water supply schemes 24,143 rural and 298 urban water supplies got rehabilitation works in all regions of the country. The doubled achievement than the

plan on rehabilitation works showed that greater emphasis was given to existing water supply schemes to sustain their services for the community at large.

In this budget year 24,590 new water and sanitation committees which has more than 50% female members were organized, 62,145 existing committees got different support, 147 committees got legal recognition, 2,709 artisans and 40 community facility teams were organized and made to engage to completed water supply schemes which was giving service at community level.

Because of the presence of water supply schemes construction (excluding those schemes constructed at household level) 58,787 persons (45,043 male & 13,744 females) got permanent and temporary employment opportunities. These opportunities were created for those youth and artisans who were dwelling around the areas where the schemes were constructed.

36,241(18,680 male and 17,561 females) water and sanitation committee members, water utility board members and experts, and artisans got different short term training, in addition to 237 (212 male & 25 females) regional, Zonal and Woreda experts who took medium and long term trainings.

Implications of the Budget Year Water Supply and Sanitation Achievements

The achievements of the budget year are less by 14.3%, 46.4% and 20.6% from the plans of rural, urban and national plans to be achieved respectively on the GTP II of the first year. But, in addition to the completed schemes that started serving the community, there were 2500 rural water schemes under construction process (1283 rural water schemes over 50% construction status & 1217 rural water schemes below 50% construction status). 725 rural water schemes were rural pipe systems with community taps among the 2500 under construction schemes. The 1283 rural schemes which were over 50% construction status will be completed in the next budget year within 3 or 4 months and these will benefit more than 905,000 population. The delay of projects that was created due to the presence of overburdens and priority to life saving works for draught affected people and will be resolved and the objectives of the budget year will be achieved completely when the projects get completed within short period of time.

Additional burden will be created on the implementation of the second growth and transformation plan, if plans in each year are not completed on time. Therefore, it has been

mandatory to incorporate the uncompleted works of 2008 EFY in the 2009 EFY plan in order to fully meet the targets of GTP II.

Encountered Problems

During the implementation of 2008 EFY plan, so many challenges were confronted. These problems include:

- Shortage and capacity limitation of Contractors, Consultants and Suppliers,
- Capacity limitation of staffs in all levels (in contract management, monitoring and evaluation and reaction giving),
- Staff turnover especially those staffs who have long experience in the sector,
- shortage of foreign exchange for those goods and services which come from abroad,
- Unavailability of fully organized information and information flow from implementers (Regions, Towns & Woredas) ,
- Limitation on giving support, monitoring and evaluation in some project of Towns and Shortage of budget.

Solutions Taken for Encountered Problems

Different platform (Quarterly) were held with public wings of the sector for discussion to avoid problems which were seen in private sectors.

Rigs were purchased by all regions to minimize the problem on well drilling.

Discussions were also conducted with relevant bodies to avoid the problems which were encounters during L/C(letter of credit) opening.

Different trainings were organized to ease the capacity gaps observed in different levels of implementing regional bureaus, Urban Water Supply & Sanitation staffs.

The salary increment implemented by government in 2006 EFY reduced, in some extent, the staff turnover.

To improve the Water Supply system, “Self Supply using low cost technology” has been supported by government policy and this in turn created conducive environment for implementation.

The shortage of foreign currency was solved by discussion with the National Bank of Ethiopia.

Different efforts were done to bring the scattered efforts of development partners together, and as a result Consolidated WaSH(water sanitation and Heigne) Account (CWA) has been opened and implemented.

There was improvement in budget allocation since Regions, Towns and Woredas were triggered to give special attention for water supply works.

The trainings and discussions forums organized alleviated the problems encountered on project monitoring, evaluation and reaction giving.

The Way Forward/Future Thematic Areas/

- To incorporate and meet the unachieved targets of 2008 EFY with the plans of 2009 EFY, it is mandatory to fulfill the necessary human, financial, technological & material resources at Federal, Regional, Zonal and Woreda levels.
- To make all societies advantageous from the national water supply and sanitation program, by achieving the second growth and transformation objectives, it is necessary to promote the program and to find additional budget sources.
- It is very crucial to create different forums and platforms to discuss with the public wings of the sector to avoid the problems on non-governmental development partners and private sectors for the improvement of their participation in the sector.
- The Water Supply & Sanitation schemes which are intended for construction must be assured whether they are considering study and design parameters, social and environmental safeguard and climate change resilience conditions.
- It is also important to give emphasis for low cost technology water supply scheme construction by mobilizing the whole community at once and by strengthening developmental army in the sector from the top level to the grass root levels of administrative hierarchy.
- Strengthening continuous capacity building works, using modern management information system and timely reporting mechanisms along with accountability are important measures.

- To minimize problems on the sector and to work with the community wings, it is important to scale up and continue good governance works on sustainable basis.
- Organizing capacity building and legalizing the beneficial community on existing Water Supply schemes is one of the priorities to assure water supply service sustainability, in parallel to the construction of new water supply schemes. Moreover, replacing diesel driven water supply schemes by renewable energy, and promoting this sector too must be done largely and continuously in the water sector.
- To minimize non-revenue-water in towns, the introduction of cost saving and waste water treatment technology for reutilization purpose must be realized.
- The necessary support in monitoring & evaluation to implementing bodies to incorporate all data that are important to measure the performance of GTP II achievement (indicators) of the sector must be priority focus for the top management.
- Efforts must be done in coordinating development partners, preparing and submitting project proposals to development organizations and proper utilization of the available budget that is obtained from different sources.

3. Medium and Large scale Irrigation and Drainage sub sector

In 2008 Ethiopian fiscal year, nationally it was planned to conduct study and design on an area of 431286 hectare of land and to construct irrigation facilities covering an area of 210430 hectare. In line with this study and design on an area of 71,291 hectare has been conducted against the planned area of 431286 hectare . Similarly, construction of irrigation facilities on an area covering 39,786 hectare had been executed against the planed area of 210430 hectare .

The performance of medium and large scale irrigation development disaggregated by stakeholders is as follows:-

- Ministry of Water, Irrigation and Electricity planned to conduct study and design on an area of 40,000 hectare of land, of which 20,300 hectare has been executed.

- Ministry of Water, Irrigation and Electricity had planned to carry out construction of irrigation facilities on an area of 56,077 hectare of land, while the achievement was 3,422 hectare .

- Regional states as a whole planned to conduct study and design on an area of 291,430 hectare of land while the achievement was 50,991 hectare .

- Regional states as a whole planned to construct irrigation facilities on an area of 54,497 hectare while the achievement was 21,112 hectare .

- Sugar Corporation as whole planned to conduct 99,856 hectare .had no plan for study and design, but there was no achievement .

- Sugar Corporation planned to construction irrigation facilities on an area of 99,856 hectare of land while the achievement was 15,251 hectare.

Encountered Problems

During the implementation of 2008 EFY plan, so many challenges were confronted. These problems include:

- Lack of budget for new projects;
- Stakeholders' weak implementation capacity (Federal, Regional);
- Limitation in number of capable local contractors, consultants and firms conducting geotechnical investigation in the country;
- Failure of contractors to deploy construction machineries, equipment and labors according to schedules;
- Failure of stakeholders at different levels to complete resettlement action plans and effect compensations within the set time frames;
- Length procurement processes for hiring of contractors and consultants; and
- Experienced and skilled staffs turnover.

Solutions Taken for Encountered Problems

Contractors were urged to abide to their contractual obligations by deploying more machineries and equipment either through renting or procurement. Similarly, they had also been advised to deploy more labors;

On issues requiring involvement of different institutions, steering committees were established;

Discussions had been made with local firms engaged in manufacture of construction machineries, so as to seek joint solutions to problems related to shortage of construction machineries;

Bid prices revision has been made based on results of current market prices assessment ; and

Continuous follow-up meetings had been made with consultants and contractors on how to speed up the progresses.

4. Electricity development sub sector

I. Electricity generation, transmission and distribution

GTP II's first year goals (2008 EFY)

- To enhance electricity generation capacity from 2399.5 MW(Mega Watt) to 5670 MW.
- To enhance the existing electricity generation from 1500 Mega Watt to 3575 Mega Watt.
- To enhance the transmission line from 14,065 KM(Kilo Meters) to 17,236 Kilo Meters .
- To enhance the medium voltage distribution line from 88,266 KM to 95,096 KM.
- To enhance the low voltage distribution line from 100,939 Kilo Meters to 114,431 Kilo Meters.
- To enhance the distribution line rehabilitation from 6135 Kilo Meters to 7067 Kilo Meters.
- To increase the number of customers from 2.31Million to 2.99 million .
- To enhance the electricity access from 54. 25 % to 62.25%.

- To enhance the per capita annual electricity consumption from 86 KWh(kilo watt hours) to 147.33 KWh.
- To reduce distribution electricity loss from 17% to 15%.
- To minimize the frequency of power interruptions and outages

a) 2008 fiscal year performance

1. Electricity generation capacity

To meet the growing electricity demand and help speed up the economic and social development in the country, as well as to increase the power supply reliability and earn foreign currency by exporting electricity, it is planned to construct new power stations and finish the constructions of ongoing projects.

1.1 Increasing electricity generating capacity

It was planned to enhance electricity generation capacity from 2399.5MW to 5670 MW during the EFY. The generation capacity has reached 4,269 MW /15,943 GWh(Giga watt hours)

1.2 Electricity generation

It was planned to increase the existing electricity generation from 1500MW to 3575MW / 8613GWh(Giga Wat Hours) to 21482 GWh .The electricity generation reached 1800MW/10,464GWh

During the preparations of the second Growth and Transformation Plan, it was assumed that the mega projects started during the firast GTP period will start operation and early generation units of the projects would start and the capacity of 2399 MW near the end of 2007 Ethiopian fiscal

year will grow to 17208 MW at the end of GTP II. Accordingly to meet this target, 4828 MW from hydropower, 324 MW from wind power, 50 MW from urban solid waste, 252 MW from sugar factories, 7 MW from geothermal energy, 120 MW from biomass, 87 MW emergency generation, in total 5670 MW generation capacity at the end of 2008 fiscal year was planned.

Nevertheless, the generation capacity has been 57.2% and the actual energy generation stood at 36.2% during the fiscal year. This is mainly due to the delay of some generation plants such as GERD (750MW from 2 units),Genale Dawa III(254MW),from sugar factories (250MW) and Repi Waste to energy project (50MW).

In terms of generating capacity was planned 3575 MW but actual peak generation was 1800 MW (14.5% performance) and generated energy 21482 MW was planned and 10464 MW was actually generated with 14.4% performance. This is mainly due to the delay of some generation plants, the climate change effect caused low level of water in the existing dams and the weak transmission and distribution system.

Even though the occurrence of Elnino caused water shortage in some of the dams, the generation grew by 10% from the previous year. Due to the low level of water in the dams, Tekeze(40%), Melka Wakana (49.7%), Koka (48.9%), AwashII (57.7%) and Amerti Neshe (31.2%) generated during the fiscal year.

In general, out of the 1547.47GWh planned generation, 598.17GWh has not been generated but it was compensated by 626.13 GWh generated from Gibe III dam.

2. Transmission lines length increase

It was planned to increase the transmission line from 14,065KM (end of 2007 fiscal year) to 17,236KM (2008 Fiscal year) - The transmission line reached 15,137Km during the fiscal year.

- 500kV transmission line: reached 1240Km from 1238Km in the previous year and it is completed according to the plan.
- 400kv transmission line: planned to increase it from 1,107KM to 1625KM but it was not accomplished.
- 230KV,132Kv, 66KV:it was planned to increase it from 11718 KM to 14,371 KM but it only reached 12,788KM.

Transmission line projects

- Gibe II –Wolayeta Sodo II 400KV (119KM)
- Alaba-Hosana-Gile Gele Gibe-Jimma-Agaro-Bedele 230KV(315KM)
- Alamata-Mehoni-Mekele 230KV (141KM)

- Metu –Gambela 230KV (115KM) and substation
- Koka –Hurso 230KV (350KM) and substation

In general, 1070Km transmission line construction has been completed and operational during the fiscal year.

3. Distribution lines

3.1 To enhance the medium voltage distribution line

It was planned to enhance the medium voltage distribution line from 88,266 KM (end of 2007 Ethiopian fiscal year) to 95,096KM (2008 Ethiopian Fiscal year) . 6,085.82 KM distribution line has been completed during the fiscal year which in total reached 94,351.82KM.

3.2 To enhance the low voltage distribution line

It was planned to enhance the low voltage distribution line from 100,939 KM (end of 2007 Ethiopian fiscal year) to 114,431 KM (2008 Ethiopian Fiscal year) . 4748.8KM low voltage distribution line has been completed during the fiscal year which has been reached 105,687.82 KM.

Regular medium voltage distribution lines projects in different regions 2,344KM and under UEAP 3741.82KM has been completed. Regular low voltage distribution line projects 1844KM and under UEAP program 2904.8KM has been completed. Moreover, 2677 distribution transformers have been installed.

3.3 Distribution line rehabilitation

It was planned to enhance the distribution line rehabilitation from 6135 KM (end of 2007 Ethiopian fiscal year) to 7067KM (2008 Ethiopian Fiscal year).2,210.79 KM distribution line has been rehabilitated during the fiscal year which in total reached 8345Km.

4. Increase the number of customers

It was planned to increase the number of customers from 2.31Million (end of 2007 Ethiopian fiscal year) to 2.99 million (2008 Ethiopian Fiscal year), the number of customers has reached 2.49 million during the fiscal year.

It was planned to connect 645,000 customers during the fiscal year but only 180,028 customers have been connected. This was mainly because of the shortage of inputs occurred to connect the planed number of customers.

Out of 140,587 back log requests, which have paid and waiting for long period, 126,813 customers (90%) have been connected. Moreover, by giving priority to export industries, Health centers, water supply projects, irrigation projects, universities, Ethio telecom and Micro and small scale enterprises additional 53,215 customers have been connected**.**

5.Increase electricity access

It was planned to enhance the electricity access from 54.25 % (end of 2007 Ethiopian fiscal year) to 62.25% - The electricity access has reached 56% during the fiscal year.

Under the UEAP, it was planned to connect 2042 towns and villages but only 398 towns and villages have been electrified, the construction of 131 towns and villages has been completed but still waiting to get electricity and the remaining 1513 towns and villages are under different level of progress.

The low implementation of the planned activities is mainly due to shortage of inputs such as medium voltage concrete poles, insulator, conductor, other relevant equipment and shortage of budget during the first half of the fiscal year.

6.Reduce distribution losses

The plan was to reduce distribution electricity loss from 17% (end of 2007 Ethiopian fiscal year) to 15%,then the distribution loss has been reduced to 16% during the fiscal year.

7.Reduce power interruptions

7.1To minimize the frequency of power interruption

The frequency of power outage has been reduced to 119 during the fiscal year from 122 in the previous year

7.2 To minimize the duration of power interruptions

The duration of power outage has been reduced to 144 hour/line/year from the previous year 161 hour/line/year.

b) **The implication of 2008 Ethiopian fiscal year implementation on the final GTP II targets**

1. **Electricity generation**

Out of the planned generation during the fiscal year, 75% of the generation capacity has been achieved. Once the ongoing projects such as Genale Dawa III (2011 EFY), Repi Waste to energy project (2017), and Ayesha wind farm are completed, the GTP II generation plan will be on the right track. Moreover, the GERD will be completed during the GTP II period.

2. **Transmission line**

The transmission line project needs shorter time for completion than the generation plants. Moreover, the prospect of getting loans from international sources is easier for the transmission projects. However, the repayment period of the principal amount and the interest of the loan are very short which creates a huge pressure on the borrowing ability of the company. In general, the relative access of soft loans for transmission projects from the international sources is advantageous to achieve the GTPII targets unless the limited project management capacity creates delays.

3. **Increasing the number of customers**

The total number of customers has reached 2.49 million during the fiscal year. It was planned to connect 645,000 customers during the fiscal year but only 180,028 customers have been electrified. This was mainly because of the shortage of inputs occurred to connect the planned number of customers.

Out of 140,587 back log requests, which have paid and waiting for long period, 126,813 customers (90%) have been connected. Moreover, by giving priority to export industries, Health centers, water supply projects, irrigation projects, universities, Ethio telecom and Micro and small scale enterprises additional 53,215 customers have been connected.

Generally, the total number of customers planned for the GTPII and the actual connection rate during this fiscal year has been average .But, by solving the existing financial problems and by improving the network capacity, the GTP II goals could be achieved.

4. **Enhancing electricity access**

During this fiscal year, it was planned to connect 2042 towns and villages but only 398 towns and villages have been electrified. This low level of implementation has raised a lot of complains among the rural communities. Therefore, an intervention and support is needed from the government to solve the prevailing shortages of distribution equipment and financial problems of the rural electrification program.

5. Electric transmission and distribution lines

The implementation of middle voltage distribution line is 89% while the distribution line rehabilitation is 237% and the low voltage distribution stood at 35.2% during the fiscal year. These shows the projects are on the right track to achieve the GTP II targets if the prevailing shortage of inputs and network capacity is improved.

6. Distribution loss

Only 50% of the distribution loss reduction target for the fiscal year was achieved. This implies a lot has to be done to achieve the GTPII's distribution loss reduction target.

7. Power interruptions and outages

Even though the frequency and the duration of power interruptions and outages have improved during the fiscal year, a lot has to be done to minimize the power interruption. The ongoing projects, such as Addis Ababa distribution rehabilitation project, the 6 towns' distribution network upgrading project and the 8 town's distribution network upgrading project are expected to be completed in the next fiscal year. These projects are expected to improve and reduce the power interruption by 60%.Therfore, by implementing additional distribution network improvement and rehabilitation project, the GTP II targets will be achieved.

c) Encountered Problems

1. Electricity generation

Challenges during the fiscal year

- Weak institutional capacity specially lack of finance has been the major challenge in the implementation of the plan during the fiscal year. This is mainly due to the low electricity sales tariff, which creates a huge burden on the ongoing projects' performance.
- Lack of legal frame works to engage the private sector in electric sector investment.
- The unavailability of well capable training institute to produce the human capacity needs of the sector.

- The lack of foreign currency reserve needed for foreign investment guaranty.
- Some projects financed by government loans delayed because of the lengthy procedures of getting the finance.
- Lack of finance to supply power to the rail way projects and industry parks.
- Inadequate support and cooperation of other stakeholders created delays which in turn raises good governance issues from the public.
- Delays in resettlement issues specially delays by the regional governments in relocating those who get compensations.
- Moreover, delays in the issues of valuation of properties and over valuation of compensation from the displaced community.

Solutions Taken for Encountered Problems

- In order to solve the problem of financing in the sector, the institution has started revising the existing tariff.
- Different legal frameworks for geothermal, hydro and other renewable energy sources have been designed to encourage private sector investment.
- External technical and financial assistance is targeted to enhance the human capacity needs of the sector.
- Additional power agreement and interconnection with Sudan, Djibouti and Tanzania is under negotiation to increase its revenue.
- The government has to strengthen the bilateral loan agreements and it should also influence the banks to provide the finance on time. Moreover, there should be a mechanism to use the existing finance till the loans are available.
- The finance needed to supply power for railway projects and industrial parks should be planned in advance to minimize the delay and financial burden on the company.

- The resettlement and compensation issues should be addressed on time by regional administrations and government to reduce project delays.

2. .Electricity supply

Challenges during the fiscal year

- Good governance issues, lack of management and technical skills, lack of motivation and commitment, ethical problems of some of the staffs and the management's engagement on solving current problems not focusing on strategic issues and solutions.
- Inadequate finance because of the existing low tariff which creates shortage of inputs, delays in procurement of distribution equipment, shortage of pole supply and vehicles.
- Old distribution networks and substations.
- Lack of institutional capacity in the implementation of projects.

Solutions Taken for Encountered Problems

The staffs were organized in quality teams to reduce the good governance issues. This has brought some improvement in the service delivery.

Customer forums have been strengthened, citizen charter was prepared and some equipment is being maintained for reuse.

Measures taken to alleviate the financial challenges

The government has supported to get loans from different banks to finance network rehabilitation project in Addis Ababa and rural electrification programs in different regions.

The company gave priority to electrify its backlog requests, for those which have paid and waiting for long time to get the service. This has adjusted the balance sheet of the company by reducing its liability component.

Measures taken to alleviate shortage of inputs

Even though there has been shortage of inputs, necessary measures were taken to fully utilize the available distribution equipment.

To enhance the capacity of concrete pole production, 7 local contractors are producing poles in 13 production facilities. But, to meet the demand for concrete poles it is necessary to solve the foreign currency problems. Moreover, the low voltage distribution poles production has been done by TVET associations and it is necessary to provide support and capacity building to the associations to upgrade them into middle level enterprises.

In the rural electrification programs, the concrete pole production and distribution line construction were given to micro and small enterprise. Accordingly, 127 enterprises are engaged in distribution line construction and 27 enterprises are involved in pole production after taking the necessary trainings.

5. Alterative Energy Technology Promotion and Dissemination

2008 **Ethiopian Fiscal Year Targets**

- To distribute 1.87 Milion improved cook stoves
- To construct 4,500 bio digesters
- To distribute 451,200 solar technologies
- To generate electricity from small rivers

2008 EFY performance

In the 2008 FY, it was planned to benefit rural households from 4,500 domestic biogas digesters and it was constructed 2,605 (74.4% accomplishment). The contribution of the constructed biogases plants is estimated to save 5,416 ton of fuel wood deforestation in the year. With respect to the carbon gas emission the constructed biogases could put away an emission of 9,899 ton carbon to the atmosphere in the year. Moreover, 1,980 of the users had utilised slurry by producing 611 ton of organic fertilizer, Urea, for improvement of their crop production.



In the physical year, it was distributed 1,606,942 improved cook stoves. This performance versus the target (1,870,000) is 86%. It is estimated that it was saved a 7,188 hectare of forest wood or 273,155 ton of fuel wood in the year because of the contribution of the mentioned distributed cook stoves. This also infers that it conserved emission of 284,161 ton carbon to the atmosphere.

Regarding the performance of household level PV solar electric power distribution, the annual target for solar lantern distribution was 400,000 and it was distributed 522,107 (130% accomplishment). And the annual target of HH domestic Solar PV system was 50,000 HHs and was accomplished 37,196 (74.4% accomplishment). In addition it was planned to distribute 500 institutional PV systems and it was installed 703 (141% accomplishment.). In General it was distributed 560,000 Solar PV power items and its overall performance versus the plan is 124%.

It was planned to construct 9 Micro Hydropower and 5 was realized.

It was also planned to make 11 alternative energy technology samples and to verify their technical viability along with making ready for distribution whereas 10 was accomplished (74% accomplishment).

The implication of 2008 Ethiopian fiscal year implementation on the final GTP II targets

In terms of the major objective to distribute biogas, solar and improved cock stove technologies the performance of 2008 E.C was high and this indicates that we can fully achieve the goal of the second growth and transformation plan at the end of GTPII.

Encountered Problems

1. Improved cock stove Project
    - Preparation of some Strategic documents and guidelines are not completed as per the time frame which hinders to start some activities on time.
    - Regions were not supported financially because of the budget suppose to be obtained from the Norway Energy plus was not fully obtained.
2. Rural Electrification Project
    - Long procumbent procedures,
    - less clarity between stockholders,
    - shortage of fund,
    - private sectors and other organizations working on the distribution of solar technology are not submit reports on time,
    - Regions were not able to organize associations with full formalities on time.
3. Workshop and Laboratory

Solutions Taken for Encountered Problems

1. Improved cock stove Project
    - There is a close flow up from our side consultants to complete the documents .
    - In addition to looking for other donors large amount of budget was planned to obtain from the local government to perform the planned activities.
2. Rural Electrification Fund Project

    This Project has performed the following major activities:-
    - With the consultation of concerned bodies LC/Letter of credit /has been opened.
    - Different project proposals have been submitted to donor Organization.
    - Reports were collected from Stake holders (Private & others) on time.
    - Region were capacitated to fulfil the criteria of cooperatives establishment
3. Workshop and Laboratory

Though it has been the main challenge to get professionals based on our salary scale, deferent technologies were developed by the existed manpower.

6. Integrated basin development and management

The plan and goals of the second growth and transformation plan

- On 6 sub basin 276,456 hectares of land the integrated basin were developed the farmers (females and youths participate and benefited)

The planed year (2008 EFY) goal achievement

- On the end of 2008 EFY the biological works planed to cover 6063 hectares of land on (Tekeze, Gilgel gibe, Rift valley and Tanabeles Project) planed to seedlings were planted this is 91.5% of achievement
- The physical works /soil and water conservation works technologies planed to achieve on 134 759 hectares of land and achieved 130446 hectares of and this is 97% achievement



- The achievements on project wide
    - Tana Beles project 5,206 hectare plan and 5049 hectare achievement
    - Gilgel Gibe project 34000 hectare plan and 34000 hectare achievement
    - Rift valley project 20000 hectare plan and 20000 hectare achievement
    - Gidabo project 25533 hectare plan and 25397 hectare achievement
    - Melka wakena project 20000 hectare plan and 16000 hectare achievement

Encountered Problems

- Man power problems financial problems integration problems between offices, professional

Solutions Taken for Encountered Problems

- The existing experts capacitate for better achievement
- Additional experts were hire to fill the expert
- The capacity building works were goes up to bottom of beneficiaries and stake holder
- Benefit the lower societies (surrounding people of the project
- Achieving integrated watershed management practise.

7. Groundwater Study, Design and Development

2008 EFY **GTP II** Ground water Goals:

During the 2008 EFY, It has been set agoal of conducting and complete the remaining 70% of all the feasibility study projects and drill 50 deep test water wells and make ready for water supply and irrigation purpose.

2008 EFY Plan Accomplishment:

To meet the above goal, groundwater feasibility study and design have been carried out in different locations of the country (Wolikite- Ambo, Teru-Chifra, Shinille, Borena and Kobo-Chefa). The 2008 EFY **GTP II** plan as mentioned above was to complete all the 70% remaining study worksand unfortunately the accomplishment was only 63%. The accomplishment against the plan is therefore only 90%. The deep test water wells drilling were also carried out in the same areas wherethe plan was to drill 50 wells and have been drilled only 25 wells and the achievement was only 50%. The detail drilling activities planned and achievement in each project areas are, Teru-Chifra planned 6 but drilled 5, Wolikite- Ambo planned 6 but drilled 5, Kobo-Chefa planned 5 but drilled 4, Borena planned 15 but drilled 7 and in Shinille planned to drill 18 wells but could only drilled 4 wells. In general the total fiscal work accomplishment against the plan is therefore only 70%.

Encountered Problems

Several assumptions have been considered during planning of the **GTP II** 2008 EFY and failure of the assumptions has led to poor performance of the project activities. The major Challenges are as follows:

- Insufficient and low capacity of drilling contractors in the Country to complete their assignment in the given contract period.
- Incapability of drilling contractors to use different drilling technologies as per the geological conditions of each area.
- Lengthy time taken to solve challenges and complete the assignment, during drilling and construction of wells.
- Drilling accessories and foreign currencyare not adequately available as required in the country and the importing process of same is very lengthy.
- The majority of foreign bid winners do not make ready all the necessary drilling accessories in the site.
- Unavailability of Fuel and drilling fluids around the projects site.
- Lack of immediate response by Drilling supervisors for challenges faced in the site.
- Several temporary man made problemshave been occurred in the project areas which obstacle the contractors daily activities and that leads to the delay of the contracted works.
- Shortage of manpower in the project office as well-as in the directorate.
- UN planned additional works are also contributed to the delay of planned activities.

Solutions Taken for Encountered Problems

- Efforts have been exerted to capacitate local drilling contractors. Letter was written to the office of Prime Minister to look for options on how private investors of the sector could get financial support from Government financial institutions.
- To maximize the number of drilling contractors and consultant efforts have been exerted to lobby foreign investors and accordingly several companies could participate in the tenders floated in the last fiscal year. This has to be strengthened in the near future.
- Identifications of gaps of drilling inputs and lobbying of foreign and local investors was made to start production of drilling inputs within the country.

- In areas where there was temporary man made problems, supporting letters were written to zone and woreda,s officeto get security cover for contractors equipment's and machineries.
- Awareness creation has been done in the project areas about the objectives and uses of the project to avoid uncertainties of the communities and as a consequence, drilling activities were continued without interruption.
- Efforts have also been exerted to alleviate shortage of professionals by working with the existing manpower.

Issues to be considered for the coming fiscal year:

- The Government has to improve its support to the actors of the water sector particularly in availing financial sources for the private investors of the sector from governmental financial institutions.
- Sufficient budget has to be allocated in order to complete the planned activities
- Exert maximum effort so that production of drilling inputs shall be started in the country.
- Work in close collaboration with Public Procurement and Property Disposal Service to speed up tendering processes
- Prepare quality and unambiguous tender documents
- Exert effort to improve the capacity of experts of the sector and alleviate the shortage of skilled manpower.
- Closely follow up progresses of projects by filling the shortage of manpower of the Directorate

In a nutshell, attempts are made to clarify the performance of the first year of GTP II. In the course, it is clear that there were both strengths and weaknesses. It is hoped that the lesson would be drawn from both the strengths and weaknesses. Thus, a strong working condition and partnership is to be maintained with the leadership, stakeholders and the sector professionals. To that effect, all stakeholders need to work in hand in glove.