GAVI
THE GLOBAL ALLIANCE FOR VACCINES & IMMUNIZATION
Partnering with The Vaccine Fund

Updated May 2004

Progress Report

to the
Global Alliance for Vaccines and Immunization (GAVI)
and
The Vaccine Fund

by the Government of

COUNTRY: INDIA

Date of submission: …….June 17, 2004……

Reporting period: Jan.2003 to Dec.2003*(Information provided in this report MUST refer to the previous calendar year)*

(Tick only one) :

Inception report	ρ
First annual progress report	ρ
Second annual progress report	Yes
Third annual progress report	ρ
Fourth annual progress report	ρ
Fifth annual progress report	ρ

Text boxes supplied in this report are meant only to be used as guides. Please feel free to add text beyond the space provided.
**Unless otherwise specified, documents may be shared with the GAVI partners and collaborators*

Progress Report Form: Table of Contents

1. Report on progress made during the previous calendar year

To be filled in by the country for each type of support received from GAVI/The Vaccine Fund.

1.1 Immunization Services Support (ISS): ***No Support Received under this head.***

1.1.1 Management of ISS Funds

Please describe the mechanism for management of ISS funds, including the role of the Inter-Agency Co-ordinating Committee (ICC).
Please report on any problems that have been encountered involving the use of those funds, such as delay in availability for programme use.

1.1.2 Use of Immunization Services Support

In the past year, the following major areas of activities have been funded with the GAVI/Vaccine Fund contribution.

Funds received during the reporting year _____
Remaining funds (carry over) from the previous year _____

Table 1 : Use of funds during reported calendar year 20_ _

Area of Immunization Services Support	Total amount in US $	Amount of funds			
		PUBLIC SECTOR			PRIVATE SECTOR & Other
		Central	Region/State/Province	District	
Vaccines					
Injection supplies					
Personnel					
Transportation					
Maintenance and overheads					
Training					
IEC / social mobilization					
Outreach					

Supervision					
Monitoring and evaluation					
Epidemiological surveillance					
Vehicles					
Cold chain equipment					
Other ……. *(specify)*					
Total:					
Remaining funds for next year:					

If no information is available because of block grants, please indicate under 'other'.

***Please attach the minutes of the ICC meeting(s) when the allocation of funds was discussed*.**

Please report on major activities conducted to strengthen immunization, as well as, problems encountered in relation to your multi-year plan.

1.1.3 Immunization Data Quality Audit (DQA) (*If it has been implemented in your country)*

Has a plan of action to improve the reporting system based on the recommendations from the DQA been prepared?
If yes, please attach the plan.

YES ☐ NO ☐

If yes, please attach the plan and report on the degree of its implementation.

Please attach the minutes of the ICC meeting where the plan of action for the DQA was discussed and endorsed by the ICC.

Please report on studies conducted regarding EPI issues during the last year (for example, coverage surveys).

1.2 GAVI/Vaccine Fund New & Under-used Vaccines Support

1.2.1 Receipt of new and under-used vaccines during the previous calendar year

Start of vaccinations with the new and under-used vaccine: MONTH: Jan. to March, YEAR: 2003 in Project Cities.
MONTH: Sept. to Dec., YEAR: 2003 in Project Districts.

Please report on receipt of vaccines provided by GAVI/VF, including problems encountered.

The supply of Hepatitis B vaccines (first lot) for 15 project cities was received in Sept.- Oct., 2002. The supply of vaccines, the first lot for 33 districts & second lot of vaccines for 15 Project cities was received in Sept. – Oct., 2003.

No Problems were encountered in receipt of the vaccine.

Four important suggestions were received as a feed back from the Nodal Officers of Project Cities regarding Vaccine Vial Monitor, AD syringes & Safety Boxes:

- **a.** The needle of AD syringes in future supplies should be of gauge no. 23 or 24 & not more than half inch in length.
- **b.** The safety boxes of the capacity of 50 AD syringes with half the size of the present one would be convenient and easier to carry by vaccinators to the out reach sessions.
- **c.** Vaccine Vial Monitor for monitoring the exposure of vaccine to temperatures below the recommended 2 to 8 degree centigrade will be very useful to guard the vaccine against freezing.
- **d.** The AD syringes for reconstitution of BCG & Measles vaccine must be provided in future for the districts under Hepatitis B project.

1.2.2 Major activities

Please outline major activities that have been or will be undertaken, in relation to, introduction, phasing-in, service strengthening, etc. and report on problems encountered.

In 15 Project Cities since Jan. 2003. Details as stated below:

Details as given above at 1.2.1

- The Hepatitis B vaccination was started in Hyderabad city by Nov. 2002 & in 11 other cities by March 03.
- Out of the remaining 3 cities of (Patna, Kanpur & Lucknow) the training of health functionaries for vaccination was started in 2 cities (Kanpur & Lucknow) - June –July 2003. The Hepatitis B vaccination started in Kanpur in Oct. 2003 & in Lucknow in Dec. 2003.
- The late start was due to their preoccupation in Polio eradication programme in India.
- In the remaining one city of Patna in state of Bihar due to their preoccupation in Polio eradication the training of health functionaries started in March 2004. The Hepatitis B vaccination is yet to be started in Patna City.

In 33 Project districts since Jan. 2003 are stated below.

- Two Master Trainers & two Nodal Program Officers were trained from each of the 33 project districts on time (April –June 2003).

- Printing & dispatch of copies of Training Modules in English & Regional Languages for further training of medical officers and vaccinators in each districts was distributed . (May –July – August 2003).

- The budget required for each district for the training of Medical Officers & Vaccinators disbursed to the states for selected districts by Govt. of India (June -July 2003).
- An amount of approx US $ 294963 was released by Government of India from its own budget for training in above stated 33 districts from RCH programme in June 2003
- In addition to the 32 districts already selected for Hepatitis B project , one more additional district (the Union Territory of Andaman & Nicobar) was added under the project after consulting the ICC (Inter-Agency Co-ordinating Committee), due to their high prévalence rate of Hepatitis B infection.

- The vaccine distribution plan for supply of Vaccine from UNICEF to the Central Medical Store Depots (MSDs) of the country & from MSDs for each of the 33 project districts was developed & shared with UNICEF for release of vaccines. Thereafter instalment of vaccine supply for the first & second quarter has been dispatched for the 33 districts.

- Implementation of Hepatitis B vaccination has been initiated in all the 33 Project Districts between Sept. 2003 to Dec. 2003.

STUDIES AND ASSESSMENT

- The Study on assessment of Injection Safety has been completed. The findings of the study are enclosed as enclosure 1.

Problems encountered & actions taken / being taken to improve the performance:

Decrease in immunization coverage in some districts / cities from the earlier higher coverage was noticed. Lack of monitoring & feed back in general and Poor infrastructure in city slums was found to be among the main reasons responsible for this.

The follow up of comparatively poor performing districts has been taken up through the visits of WHO, NPO- Hepatitis B, Program Coordinator & Project Administrator from CVP- PATH, Assistant Commissioners (child Health & Immunization) and Deputy Commissioner (Child Health), Govt. of India. The letters have been issued by the Child Health division of the Ministry to provide feed back & get the missing monthly progress reports from the project cities/ districts.
A computerized Immunization Performance Monitoring system, including the monitoring of vaccine stocks and AEFI (Adverse Events Following Immunization) is being developed to cover all the states of the country. This will help to further improve the timely monitoring & feed back for improving immunization coverage, proper distribution of vaccines & reducing the vaccine wastage.

In consultation with ICC the Govt. of India has planned to cover all the non slum infants of the city also. This will help to ensure equity among all the infants & to improve the coverage of infants by expanding the provision of Hepatitis B vaccination from health care facilities in the non slum areas also.

After the present intense investment of manpower, time & funds on polio eradication succeeds by year 2006 and we are able to devote more time & resources for other immunization priorities, the govt. of india plans to consider further expansion of hepatitis b vaccination in additional districts/ states. we are also hopeful to consolidate and further strengthen our achievements in the present project areas covered by hepatitis B vaccination by that time.

1.2.3 Use of GAVI/The Vaccine Fund financial support (US$100,000) for the introduction of the new vaccine

Please report on the proportion of 100,000 US$ used, activities undertaken, and problems encountered such as delay in availability of funds for programme use.

The following major areas of activities have been funded (specify the amount in US$) with the GAVI/The Vaccine Fund support:

- From the above support of US $100,000, an amount of approx. $ 57583 was utilized for Orientation & Progress Review Workshops of Program Managers & Training of Trainers for 33 selected districts under the Hepatitis B project.
- An amount of approx. $ 16500 has been disbursed starting Sept. 2003 for IEC activities & monitoring of arrangements for effective implementation of the project in 33 districts.
- The nodal officer already nominated & briefed for each district have been requested to provide due attention for proper launching of the program in their respective districts.
- They have also been requested to review the preparations for smooth launching of Hepatitis B vaccination with concerned State E.P.I. officer & other important stakeholders.

1.3 Injection Safety

1.3.1 Receipt of injection safety support

Please report on receipt of injection safety support provided by GAVI/VF, including problems encountered

1.3.2 Progress of transition plan for safe injections and safe management of sharps waste.

Please report on the progress based on the indicators chosen by your country in the proposal for GAVI/VF support.

Indicators	Targets	Achievements	Constraints	Updated targets

1.3.3 Statement on use of GAVI/The Vaccine Fund injection safety support (if received in the form of a cash contribution)

The following major areas of activities have been funded (specify the amount) with the GAVI/The Vaccine Fund injection safety support in the past year:

2. Financial sustainability

Inception Report : Outline timetable and major steps taken towards improving financial sustainability and the development of a financial sustainability plan.

First Annual Progress Report : Submit completed financial sustainability plan by given deadline and describe assistance that will be needed for financial sustainability planning.

The Multi Year Strategic Plan for Child Health (including immunization) , developed by the Ministry of Family Welfare, Govt. of India is in its final stage. As soon as this plan & its funding is finalized the relevant details about the financial sustainability of immunization program including the Hepatitis B vaccination will be available & can be shared. Meanwhile it may be worth considering that the vaccine requirement of the twenty five million infants of the country every year for routine vaccines is being met by the Govt. of India from its own resources, hence supporting the cost of continuing the Hepatitis B vaccination in the existing 15 cities & 33 districts under the project could be easily absorbed under the regular Immunization Program of the country after the support from GAVI ceases at the end of five years.

Second Annual Progress Report : Describe indicators selected for monitoring financial sustainability plans and include baseline and current values for each indicator. In the following table 2, specify the annual proportion of five year of GAVI/VF support for new vaccines that is planned to be spread-out to ten years and co-funded with other sources.

Table 2 : Sources (planned) of financing of new vaccine …… *(specify)*

Proportion of vaccines supported by	**Annual proportion of vaccines**									
	20..	**20..**	**20..**	**20..**	**20..**	**20..**	**20..**	**20..**	**20..**	**20..**
Proportion funded by GAVI/VF (%)										
Proportion funded by the Government and other sources (%)										
Total funding for ……. *(new vaccine)* *										

** Percentage of DTP3 coverage (or measles coverage in case of Yellow Fever) that is target for vaccination with a new and under-used vaccine*

Subsequent reports: Summarize progress made against the financing strategy, actions and indicators section of the FSP; include successes, difficulties and responses to challenges encountered in achieving outlined strategies and actions. Report current values for indicators selected to monitor progress towards financial sustainability. Include funds received to date versus those expected for last year and the current year and actions taken in response to any difficulties.

Update the estimates on program costs and financing with a focus on the last year, the current year and the next 3 years. For the last year and current year, update the estimates of expected funding provided in the FSP tables with actual funds received since. For the next 3 years, update any changes in the costing and financing projections. The updates should be reported using the same standardized tables and tools used for the development of the FSP (latest versions available on http://www.gaviftf.org under FSP guidelines and annexes. Highlight assistance needed from partners at local, regional and/or global level.

3. Request for new and under-used vaccines for year 2005 *(indicate forthcoming year)*

*Section 3 is related to the request for new and under used vaccines and injection safety for the **forthcoming year**.*

3.1. Up-dated immunization targets

Confirm/update basic data approved with country application: figures are expected to be consistent with those reported in the WHO/UNICEF Joint Reporting Forms. Any changes and/or discrepancies **MUST** be justified in the space provided (page 12). Targets for future years **MUST** be provided.

Table 3 : Update of immunization achievements and annual targets

Number of	Achievements and targets								
	2000	2001	2002	2003	2004	2005	2006	2007	2008
DENOMINATORS									
Births		24.75	23.79	24.17	24.55	24.95	25.34	25.05	25.43[1]
Infants' deaths		1.56	1.26	1.28	1.30	1.32	1.34	1.13	1.14[1]
Surviving infants		23.19	22.53	22.89	23.25	23.62	24.00	23.93	24.29
Infants vaccinated / to be vaccinated with **1st dose** of DTP (DTP1)*									
Infants vaccinated / to be vaccinated with **3rd dose** of DTP (DTP3)*									
NEW VACCINES ** HEPATITIS B									
Infants to be vaccinated with **1st dose** of Hepatitis B *(new vaccine)*				0.55	1.62	2.59 [2]	2.63	2.67	
Infants to be vaccinated with **3rd dose** of Hepatitis B *(new vaccine)*				0.41	1.3	2.59	2.17	2.41	
Wastage rate of Hepatitis B ***. *(new vaccine)*				35	33	25	25	25	
INJECTION SAFETY**									
Pregnant women vaccinated / to be vaccinated with TT									
Infants vaccinated / to be vaccinated with BCG									
Infants vaccinated / to be vaccinated with Measles									

* Indicate actual number of children vaccinated in past years and updated targets (with either DTP alone or combined)
** Use 3 rows for every new vaccine introduced
*** Indicate actual wastage rate obtained in past years

**** Insert any row as necessary

Notes:

1. **The Population of the country, Birth Rate & Infant Mortality Rate projected for year 2002 to 2016 by the office of Registrar General of India have been used (*Reference SRS Bulletin Oct. 2002 & Projection tables*) for calculating no. of births & Infant deaths stated in the above table.**
2. **In consultation with ICC the Govt. of India has planned to cover all the non slum infants of the city also from year 2005. This will help to ensure equity among all the infants & to improve the coverage of infants by expanding the provision of Hepatitis B vaccination from health care facilities in the non slum areas also. The target of 2.59 million infants in year 2005 has been reached by adding 80% coverage of non slum infants in 15 project cities that is target of 0.94 million to the existing target of 1.61 million infants in 33 districts & slum infants in 15 project cities, & applying the factor of population increase. The targets for year 2006 & 2007 have been derived by applying the factor of population increase to the no. of target infants for year 2005. However in last two years the vaccination coverage has improved & it may improve further in coming years at faster pace. Hence keeping in mind the best case scenario, if immunization coverage in all the project cities & districts reaches above 80%, additional doses of vaccine may be required.**
3. **AFTER THE PRESENT INTENSE INVESTMENT OF MANPOWER, TIME & FUNDS ON POLIO ERADICATION SUCCEEDS BY YEAR 2007 AND WE ARE ABLE TO DEVOTE MORE TIME & RESOURCES FOR OTHER IMMUNIZATION PRIORITIES, THE GOVT. OF INDIA PLANS TO CONSIDER FURTHER EXPANSION OF HEPATITIS B VACCINATION IN ADDITIONAL DISTRICTS/ STATES. WE ARE ALSO HOPEFUL TO CONSOLIDATE AND FURTHER STRENGTHEN OUR ACHIEVEMENTS IN THE PRESENT PROJECT AREAS COVERED BY HEPATITIS B VACCINATION BY THAT TIME.**

4. **The % drop out observed between 3rd & 1st dose of Hepatitis B vaccine in year 2003 is 25%. The decrease of 5% in the same has been targeted in year 2004, 10% in 2005 & 6 and 15% in year 2007 & 8.**

Please provide justification on changes to baseline, targets, wastage rate, vaccine presentation, etc. from the previously approved plan, and on reported figures which differ from those reported in the WHO/UNICEF Joint Reporting Form in the space provided below.

In consultation with ICC the Govt. of India has planned to cover all the non slum infants of the city also from year 2005. This will help to ensure equity among all the infants & to improve the coverage of infants by expanding the provision of Hepatitis B vaccination from health care facilities in the non slum areas also. The target of 2.59 million infants in year 2005 has been reached by adding 80% coverage of non slum infants in 15 project cities that is target of 0.94 million to the existing target of 1.61 million infants in 33 districts & slum infants in 15 project cities, & applying the factor of population increase. The targets for year 2006 & 2007 have been derived by applying the factor of population increase to the no. of target infants for year 2005. The situation of supply overshooting the demand will be prevented by reviewing the immunization coverage each year & modifying the procurement request for next year accordingly.

3.2 Confirmed/Revised request for new vaccine Hepatitis B *(to be shared with UNICEF Supply Division)* **for the year 2005** *(indicate forthcoming year)*

Please indicate that UNICEF Supply Division has assured the availability of the new quantity of supply according to new changes.

The revised new quantity of supply required is yet to be communicated to UNICEF. As soon as the revised requirement stated in this progress report for Year 2005 & beyond is agreed by the GAVI Board, the same will be communicated to UNICEF.

Table 4: Estimated number of doses of *Hepatitis B* vaccine *(specify for one presentation only)* : *(Please repeat this table for any other vaccine presentation requested from GAVI/The Vaccine Fund*

		Formula	For year 2005
A	Infants vaccinated / to be vaccinated with 1st dose of ….. *(new vaccine)*		2.59
B	Percentage of vaccines requested from The Vaccine Fund taking into consideration the Financial Sustainability Plan	*%*	100%
C	Number of doses per child		3
D	Number of doses	*A x B/100 x C*	7.77
E	Estimated wastage factor	*(see list in table 3)*	25%
F	Number of doses (incl. wastage)	*A x C x E x B/100*	9.71
G	Vaccines buffer stock	*F x 0.25*	Not Applicable
H	Anticipated vaccines in stock at start of year ….		Expected Zero Stock Balance
I	Total vaccine doses requested	*F + G - H*	10.34
J	Number of doses per vial		10
K	Number of AD syringes (+ 10% wastage)	*(D + G – H) x 1.11*	8.63
L	Reconstitution syringes (+ 10% wastage)	*I / J x 1.11*	0.00
M	Total of safety boxes (+ 10% of extra need)	*(K + L) / 100 x 1.11*	0.096

Table 5: Wastage rates and factors

Remarks

- **Phasing:** Please adjust estimates of target number of children to receive new vaccines, if a phased introduction is intended. If targets for hep B3 and Hib3 differ from DTP3, explanation of the difference should be provided
- **Wastage of vaccines:** Countries are expected to plan for a maximum of:
  50% wastage rate for a lyophilized vaccine in 10 or 20-dose vial;
  25% for a liquid vaccine in a 10 or 20-dose vial;
  10% for any vaccine (either liquid or lyophilized) in 1 or 2-dose vial.
- **Buffer stock:** The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero under other years. In case of a phased introduction with the buffer stock spread over several years, the formula should read: [F – number of doses (incl. wastage) received in previous year] * 0.25.
- **Anticipated vaccines in stock at start of year… …..:** It is calculated by deducting the buffer stock received in previous years from the current balance of vaccines in stock.
- **AD syringes:** A wastage factor of 1.11 is applied to the total number of vaccine doses requested from the Fund, excluding the wastage of vaccines.
- **Reconstitution syringes:** it applies only for lyophilized vaccines. Write zero for other vaccines.
- **Safety boxes:** A multiplying factor of 1.11 is applied to safety boxes to cater for areas where one box will be used for less than 100 syringes

Vaccine wastage rate	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%
Equivalent wastage factor	1.05	1.11	1.18	1.25	1.33	1.43	1.54	1.67	1.82	2.00	2.22	2.50

**Please report the same figure as in table 3.*

3.3 Confirmed/revised request for injection safety support for the year …… *(indicate forthcoming year)*

Table 6: Estimated supplies for safety of vaccination for the next two years with …… *(Use one table for each vaccine BCG, DTP, measles and TT, and number them from 4 to 8)*

		Formula	For year ……	For year ……
A	**Target of children for ……. vaccination (for TT : target of pregnant women)[1]**	#		
B	**Number of doses per child (for TT woman)**	#		
C	**Number of …… doses**	A x B		
D	**AD syringes (+10% wastage)**	C x 1.11		
E	**AD syringes buffer stock [2]**	D x 0.25		
F	**Total AD syringes**	D + E		
G	**Number of doses per vial**	#		
H	**Vaccine wastage factor [4]**	*Either 2 or 1.6*		
I	**Number of reconstitution [3] syringes (+10% wastage)**	*C x H x 1.11 / G*		
J	**Number of safety boxes (+10% of extra need)**	*(F + I) x 1.11 / 100*		

If quantity of current request differs from the GAVI letter of approval, please present the justification for that difference.

4. Please report on progress since submission of the last Progress Report based on the indicators selected by your country in the proposal for GAVI/VF support

[1] GAVI will fund the procurement of AD syringes to deliver 2 doses of TT to pregnant women. If the immunization policy of the country includes all Women of Child Bearing Age (WCBA), GAVI/The Vaccine Fund will contribute to a maximum of 2 doses for Pregnant Women (estimated as total births).

[2] The buffer stock for vaccines and AD syringes is set at 25%. This is added to the first stock of doses required to introduce the vaccination in any given geographic area. Write zero for other years.

[3] Only for lyophilized vaccines. Write zero for other vaccines

4 Standard wastage factor will be used for calculation of re-constitution syringes. It will be 2 for BCG, 1.6 for measles and YF.

Indicators	Targets	Achievements	Constraints	Updated targets
• DPT3 Coverage • Hepatitis B Coverage. • A D Syringe Use. • % of Health Officials & workers trained.	19.88 Million (75.59%) **A** 1.62 Million **B** To Start in all Project Areas 2 Master Trainers & 2 Nodal Officers in each Project City & District.	16.72 Million (63.6%) **C** 0.88 Million (54.32%) **D** Initiated in 14 Cities(out of 15) & 33 districts (out of 33 districts) Achieved in 100% in all the Project Cities & Districts.	Decrease in immunization coverage in some districts & Poor infrastructure in city slums.	80% Coverage targeted in year 2005. (The Immunization Coverage by Hepatitis B vaccine by March 2004 has reached to 62%)

Notes for Table 4 : **A:** The data are reproduced as targets set for year 2003, under point 4 , the Multi Year Immunization Plan , page 19 of the Revised Proposal submitted to GAVI for Hepatitis B Project in Nov. 2001 using Birth Cohort of 26.3 million.
B: The data are reproduced as targets set for year 2003, under Executive Summary, page 5 of the Revised Proposal submitted to GAVI for Hepatitis B Project in Nov. 2001.
C: The data are reproduced from Coverage Evaluation Survey, 2002 by UNICEF & GOI.
D: The data are based on the compilation of the Progress Reports Received by Govt. of India from states implementing the Hepatitis B Project.

5. Checklist

Checklist of completed form:

Form Requirement:	Completed	Comments
Date of submission	Yes	
Reporting Period (consistent with previous calendar year)	Yes	
Table 1 filled-in		
DQA reported on		
Reported on use of 100,000 US$	Yes	
Injection Safety Reported on		
FSP Reported on (progress against country FSP indicators)		
Table 2 filled-in		
New Vaccine Request completed	Yes	

Revised request for injection safety completed (where applicable)		
ICC minutes attached to the report		
Government signatures	Yes	
ICC endorsed	Yes	

6. Comments

ICC/RWG comments:

The contents of above stated Annual Progress Report are here by endorsed by the members of ICC.

Signatures

For the Government of India……..……

Signature: ……...……...

Title: ……..…….

Date: ……..…….

We, the undersigned members of the Inter-Agency Co-ordinating Committee endorse this report. Signature of endorsement of this document does not imply any financial (or legal) commitment on the part of the partner agency or individual.

Financial accountability forms an integral part of GAVI/The Vaccine Fund monitoring of reporting of country performance. It is based on the regular government audit requirements as detailed in the Banking form. The ICC Members confirm that the funds received have been audited and accounted for according to standard government or partner requirements.

Agency/Organisation	Name/Title	Date Signature	Agency/Organisation	Name/Title	Date Signature
DFID	Dr. Joanna Reid Senior Health Advisor		WHO, INDIA	Dr. Salim Habayeb, WHO Representative to India	
EUROPEAN COMMISSION	Dr. Karan Singh Programme Advisor		WORLD BANK	Dr. G.V. Ramana Senior Public Health Specialist	
Gates Children's Vaccine Programme at PATH	Dr. Rajkumar, Acting Project Manager				
UNICEF	Dr.Ms. Erma Manoncourt, Incharge-Country Representative				
USAID	Dr. Marie Sinet Director PHN				

~ End ~